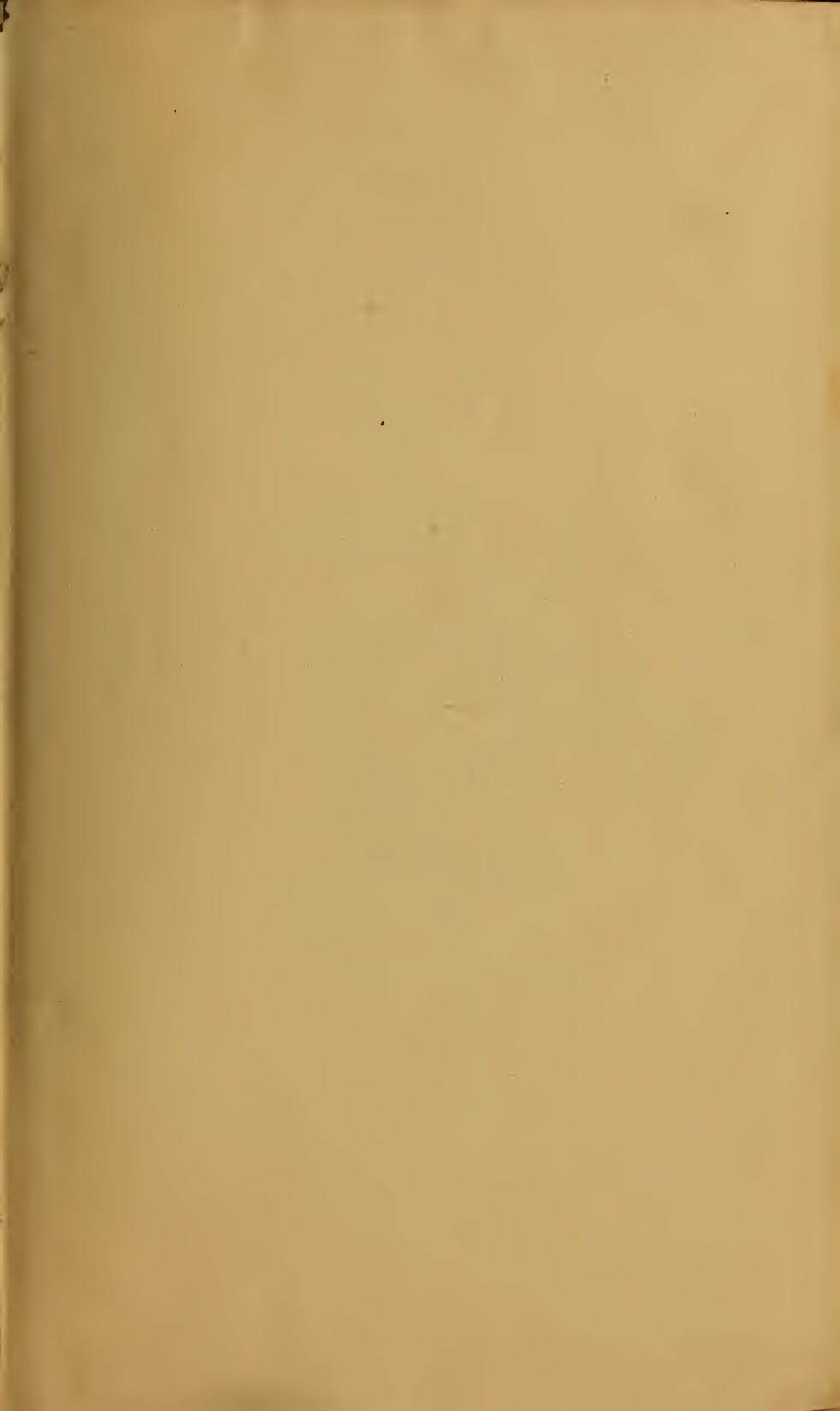


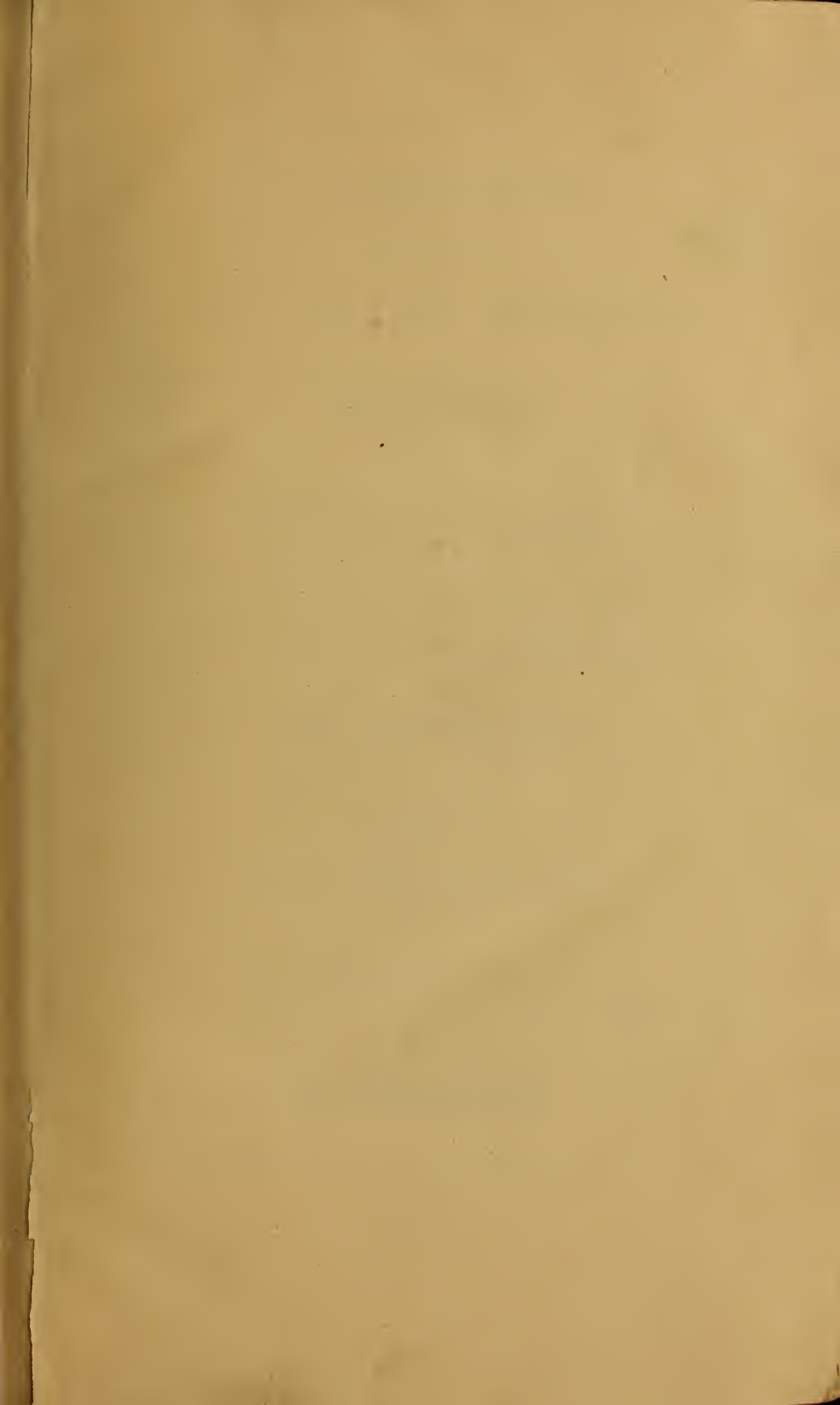
Class DA990

Book A85C6

GPO







STATISTICAL SURVEY
OF THE
COUNTY OF ARMAGH,

253
2621

WITH
OBSERVATIONS
ON
THE MEANS OF IMPROVEMENT;
DRAWN UP IN THE YEARS 1802, AND 1803,
FOR THE CONSIDERATION, AND UNDER THE DIRECTION
OF
The Dublin Society.

BY
SIR CHARLES COOTE, BART.

Terra suis contenta bonis, non indiga mercis.

LUCAN.

Dublin.

PRINTED BY GRAISBERRY AND CAMPBELL,

10, BACK-LANE.



1804.

II A990
. A85C6

TO THE READER.

This REPORT is at present printed and circulated for the purpose merely of procuring further information, respecting the state and husbandry of this district, and of enabling every one interested in the welfare of this country, to examine it fully, and contribute his mite to its improvement.

The Society do not deem themselves pledged to any opinion given by the Author of this Survey; and they desire, that nothing contained in it be considered as their sentiments; they have only published it, as the report of the gentleman, whose name is affixed, and they publish it for the comments and observations of all persons, which they entreat to be given freely, and without reserve.

It is therefore requested, that the observations on reading this work may be returned to the Dublin Society, as soon as may be convenient, and which will meet with the fullest attention in a future edition.

100676

DEDICATION.

TO

THE RIGHT HON. JOHN FOSTER,

LATE SPEAKER OF THE HOUSE OF COMMONS OF IRELAND,

AND

PRESIDENT OF THE FARMING SOCIETY OF IRELAND,

Esq. Esq. Esq.

SIR,

I HAD already been honored with your permission to commit to the public, under the sanction of your patronage, my observations on the agriculture and commerce of another county; so am I again solicitous of the like favour and countenance, in preparing this volume for press.

I feel it, at all times, an additional value to my statistical enquiries, to be honored with your protection; but to whom else, Sir, could I so properly offer my labours in this fine county, so superior to all others in the great staple of the nation, as to the friend of the

a

linen

linen trade of Ireland, and the framer of those wise laws, which have fixed our manufacture on the surest basis, and established a system of commerce which defies all competition?

I do not presume, Sir, to convey a mere compliment; your exertions, for the interest and prosperity of Ireland, are superior to my panegyric.

Permit me to have the honor of assuring you, how sincerely I am,

With the most profound respect, and
truest attachment,

Your most faithful, obliged,
And obedient servant,

CHARLES COOTE.

DUBLIN,
June 1, 1803.

PREFACE.

PREFACE.

A WORK embracing such various subjects, as are suggested for the statistical enquiry of a county, should doubtless have the assistance of many. I have heartily to lament, and feel it a presumption, that I must lay before the public the following sheets, which I cannot boast have had that advantage. Peculiar circumstances, and unfortunate casualties, precluded me the information and co-operation of those resident gentlemen, who were willing to give their cordial aid, and of others, who could also have furnished me with very interesting matter.

From so learned and respectable a body as the clergy of this county, surely, much information might have been expected, for a work intended

to effect such public service. Had these gentlemen contributed thereto, I should not now have to complain of any deficiency of materials.

It is necessary for me to state, that I took the best pains I could to obtain information, and duly apprized the resident gentry of this district of my intended tour by a circular letter, in which was enclosed a detail of the subjects to be investigated; I thought it the surest means of obtaining their remarks. Four times I traversed this county, at a considerable expence, and I oftentimes called on many of them at their houses, but had not the good fortune of meeting them, nor have I since been furnished with any observations towards the proposed enquiry.

I have, therefore, only to hope, that a candid allowance will be made for the errors and omissions, which must necessarily be found in such a laborious work, compiled from my own observations,

vations, with very few exceptions, which are thankfully acknowledged as they occur.

It is indeed to be regretted, that the illiberal jealousies, which have been roused by the active endeavours of the Dublin Society in their institution of Statistical Surveys of counties, have not yet subsided; and it is strange, that the example of this truly respectable body should not have expelled the prejudices, which yet pervade some ranks of society, with whom ignorance cannot be a plea for their groundless fears. Perhaps in the next edition of this volume they may please to give their assistance, this attempt being only intended as a groundwork, or a systematic arrangement, of the subjects necessary to be examined.

SUGGESTIONS

SUGGESTIONS OF ENQUIRY

FOR GENTLEMEN WHO SHALL UNDERTAKE THE FORMING OF

AGRICULTURAL SURVEYS.

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

Situation and Extent,

Divisions,

Climate,

Soil and Surface,

Minerals,

Water.

AGRICULTURE.

Mode of culture,

Extent of it, and of each species of grain sowed,

Course of crops,

Use of oxen—how harnessed,

Nature and use of implements of husbandry,

Markets for grain,

Use of green food in winter.

PASTURE.

PASTURE.

Nature of it,
 Breed of cattle—how far improved,
 ————— how far capable of further improvement,
 Markets or Fairs for them,
 General prices,
 Modes of feeding—how far housed in winter,
 Natural grasses,
 Artificial grasses,
 Mode of hay-making,
 Dairies, their produce,
 Prices of hides, tallow, wool, and quantity fold.

FARMS.

Their size,
 Farm houses and offices,
 Mode of repairing them, whether by landlord or tenant,
 Nature of tenures,
 General state of leases,
 ————— of particular clauses therein,
 Taxes or Cesses paid by tenants,
 Proportion of working horses or bullocks, to the size of farms,
 General size of fields, or enclosures,
 Nature of fences,
 Mode of hedge-rows, and keeping hedges,
 Mode of draining,
 Nature of manures.

GENERAL

GENERAL SUBJECTS.

- Population,
 Number and size of villages and towns,
 Habitation, fuel, food and cloathing of the lower rank—their
 general cost,
 Prices of wages, labour, and provisions,
 State of tithe, its general amount on each article—what arti-
 cles are exempt, and what charged by modus,
 Use of beer and spirits—whether either or which is increasing,
 State of roads, bridges, &c.
 — of navigations and navigable rivers,
 — of fisheries,
 State of education, schools, and charitable institutions,
 — of absentee and resident proprietors,
 — of circulation of money or paper,
 — of farming or agricultural societies,
 — of manufactures, whether increasing,
 — of encouragement to them, and the peculiar aptness of
 the situation for their extension,
 — of mills of every kind,
 — of plantations and planting, —
 — of the effects of the encouragement heretofore given to
 them by the Society, particularised in the list annexed,
 — of any improvements which may occur for future en-
 couragement, and particularly for the preservation of
 the trees, when planted,
 — of nurseries within the county and extent of sales,

Price

Price of timber and state of it, in the county,
Quantity of bog and waste ground,
Possibility and means of improving it,
Obstacles to it and best means of removing them,
Habits of industry, or want of industry among the people,
The use of the English language, whether general, or how far
increasing,
Account of towers, castles, monasteries, ancient buildings, or
places remarkable for any historical event,
Churches—resident clergy, glebes and glebe houses,
Whether the county has been actually surveyed, when and
whether the survey is published,
Weights and measures, liquid or dry—in what instances are
weights assigned for measures—or *vice versa*,
The weight or measure, by which grain, flour, potatoes, butter,
&c. are sold.

CONTENTS

OF THE

CHAPTERS.

PART I.

CHAP. I.

GEOGRAPHICAL STATE AND MODERN CIRCUMSTANCES,
WITH OBSERVATIONS ON THE NATURAL HISTORY
OF THE COUNTY.

| | Page |
|---|------|
| SECT. 1. <i>Situation and Extent</i> - - | 1 |
| 2. <i>Superficial Appropriation</i> - - | 5 |
| 3. <i>Civil Division</i> - - | 7 |
| 4. <i>Ecclesiastical Division</i> - - | 9 |
| <i>Alphabetical List of Parishes within</i> | |
| <i>the County</i> - - | 10 |
| <i>Parishes which branch into this</i> | |
| <i>County</i> - - | 15 |

References

| | Page |
|---|-------|
| <i>References to Ecclesiastical Denominations, which are not distinct parishes</i> | 17 |
| <i>Archbishoprick, or province of Armagh</i> | 18 |
| <i>Table of extent of Archbishoprick</i> | 19 |
| <i>Table of first fruits</i> | 20 |
| SECT. 5. <i>Climate</i> | 22 |
| 6. <i>Soil and Surface</i> | 25 |
| <i>Mountains</i> | 33 |
| <i>Woods</i> | 46 |
| <i>Bog and Moor</i> | 72 |
| 7. <i>Minerals</i> | 84 |
| <i>Fossils, native, and extraneous</i> | ibid. |
| <i>Mineral Waters</i> | 86 |
| 8. <i>Waters</i> | 88 |
| <i>Table of the Distance which each River runs, and the course it takes through this County</i> | 94 |
| <i>Lakes</i> | 95 |
| <i>Lough-Neagh</i> | 96 |
| <i>Navigations</i> | 104 |
| <i>Newry canal</i> | 106 |
| <i>Fish</i> | 111 |
| <i>Aquatic Birds</i> | 112 |
| <i>Amphibious animals</i> | ibid. |
| <i>Aquatic Plants</i> | 113 |

CONTENTS.

xv

CHAP. II.

STATE OF PROPERTY.

| | Page |
|----------------------------------|------|
| SECT. 1. <i>Estates</i> - - - | 117 |
| 2. <i>Tenures</i> - - - | 118 |
| 3. <i>Rental</i> - - - | 120 |
| 4. <i>Landed Proprietors</i> - - | 122 |

CHAP. III.

BUILDINGS.

| | |
|---|-----|
| SECT. 1. <i>Public Buildings</i> - - | 130 |
| 2. <i>Houses of the Gentry</i> - - | 131 |
| 3. <i>Farm-houses, and Offices</i> - | 132 |
| 4. <i>Manufacturers' Houses, and Cottages</i> | 133 |

CHAP. IV.

MODE OF OCCUPATION,

| | |
|------------------------------------|-----|
| SECT. 1. <i>Size of Farms</i> - - | 136 |
| 2. <i>Character of Farmers</i> - - | 138 |

SECT.

| | | | Page |
|--------------------------|---|---|--------------|
| SECT. 3. <i>Rent</i> | - | - | 141 |
| 4. <i>Tithes</i> | - | - | 142 |
| 5. <i>Leases</i> | - | - | 144 |
| <i>Clauses in Leases</i> | - | - | <i>ibid.</i> |

CHAP. V.

IMPLEMENTS.

| | | | |
|-----------------------------|---|---|-----|
| <i>Prices of Implements</i> | - | - | 147 |
|-----------------------------|---|---|-----|

CHAP. VI.

INCLOSING.

| | | | |
|--------------------------------------|---|---|-----|
| SECT. 1. <i>Thorn fences, hedges</i> | - | - | 149 |
| 2. <i>Paling</i> | - | - | 153 |
| 3. <i>Walls</i> | - | - | 155 |
| 4. <i>Water fences</i> | - | - | 157 |
| 5. <i>Ditches</i> | - | - | 158 |
| 6. <i>Gates</i> | - | - | 159 |

PART II.

CHAP. VII.

AGRICULTURE.

| | Page |
|---|-------|
| <i>Preliminary Remarks</i> - - | 161 |
| <i>Parochial Queries suggested by the Dublin Society</i> - - | 163 |
| SECT. 1. <i>Mode of Culture</i> - - | 167 |
| <i>Defects in the Plough, and remedies proposed</i> - - | 168 |
| <i>Defects in the Harrow, and remedies proposed</i> - - | 169 |
| 2. <i>Extent of Culture, and of each spe- cies of Grain sowed</i> - | 171 |
| 3. <i>Course of Crops</i> - - | 172 |
| 4. <i>Use of Oxen, how harnessed</i> - | 177 |
| 5. <i>Nature and use of Implements of Husbandry</i> - - | ibid. |
| 6. <i>Markets for Grain</i> - - | 181 |
| 7. <i>Use of Green Food in Winter</i> - | 182 |
| 8. <i>General observations on the modes of Agriculture, as practised in the county, with remarks on drill husbandry</i> - - | ibid. |
| <i>Wheat culture</i> - - | 183 |
| <i>Barley</i> | |

| | Page |
|--|--------------|
| <i>Barley culture</i> - - | 187 |
| <i>Oats culture</i> - - | 189 |
| <i>Potatoc culture</i> - - | 191 |
| <i>General hints on Potatoc culture</i> | 195 |
| <i>Flax culture</i> - - | 197 |
| <i>Crops not commonly cultivated to any extent</i> - - - | 198 |
| <i>Turnips (as food for cattle)</i> - | 201 |
| <i>Rape</i> - <i>ditto</i> - | 205 |
| <i>Cabbages ditto</i> - | 209 |
| <i>Carrots and parsnips ditto</i> - | <i>ibid.</i> |
| <i>Potatoes ditto</i> - | 210 |
| <i>Tares and vetches ditto</i> - | <i>ibid.</i> |
| <i>Peas</i> - <i>ditto</i> - | 214 |
| <i>Beans</i> - <i>ditto</i> - | 215 |
| <i>Hemp</i> - - | 216 |

CHAP. VIII.

PASTURE.

| | |
|---|--------------|
| SECT. 1. <i>Nature of it</i> - - | 217 |
| 2. <i>Breed of Cattle—how far improved?</i> | 220 |
| 3. <i>How far capable of further improvement?</i> - - | <i>ibid.</i> |
| 4. <i>Markets or Fairs for them</i> - | 221 |
| <i>Alphabetical</i> | |

CONTENTS.

xix

Page

Alphabetical List of the Fairs of this

| | | | | |
|--|---|---|---|-----|
| <i>County</i> | - | - | - | 222 |
| SECT. 5. <i>General Prices</i> | - | - | - | 223 |
| 6. <i>Modes of Feeding—how far housed</i> | | | | |
| <i>in Winter</i> | - | - | - | 224 |
| SECTS. 7, & 8. <i>Natural Grasses—Artificial</i> | | | | |
| <i>Grasses</i> | - | - | - | 225 |
| SECT. 9. <i>Mode of Hay-making</i> | | | - | 226 |
| 10. <i>Dairies—their produce</i> | | | - | 229 |
| 11. <i>Prices of Hides, Tallow, Wool, and</i> | | | | |
| <i>quantity sold</i> | - | - | - | 230 |

CHAP. IX.

FARMS.

| | | | | |
|---|---|---|---|--------------|
| SECT. 1. <i>Their size</i> | - | - | - | 232 |
| 2. <i>Farm Houses and Offices</i> | | | - | <i>ibid.</i> |
| 3. <i>Mode of repairing them</i> | | | - | 233 |
| SECTS. 4, 5, 6. <i>Nature of Tenures; General</i> | | | | |
| <i>state of Leases; of particular</i> | | | | |
| <i>Clauses therein</i> | - | - | - | <i>ibid.</i> |
| SECT. 7. <i>Taxes or Cesses paid by Tenants</i> | | | | 234 |
| 8. <i>Proportion of working Horses, or</i> | | | | |
| <i>Bullocks, to the size of Farms</i> | | | | 235 |

b

SECTS.

| | Page |
|---|--------------|
| SECTS. 9, 10, 11. <i>General size of Fields, or Enclosures; Nature of Fences; Mode of Hedge-rows and keeping Hedges</i> - - - | <i>ibid.</i> |
| SECT. 12. <i>Mode of draining</i> - - - | 236 |
| 13. <i>Nature of Manures</i> - - - | 238 |

CHAP. X.

GENERAL SUBJECTS.

| | |
|---|-----|
| SECT. 1. <i>Population</i> - - - | 245 |
| 2. <i>Number and size of Villages and Towns</i> - - - | 247 |
| <i>Table of Towns and Villages</i> - | 248 |
| SECTS. 3, 4. <i>Habitation, Fuel, Food, and Clothing of the lower Rank; their general Cost; Price of Wages, Labour, and Provisions; and ge- neral View of the RURAL ECO- NOMY of the County</i> - | 249 |
| SECT. 5. <i>State of Tithe; its general amount on each article; what articles are exempt, and what charged by modus</i> - - - | 257 |

SECT.

CONTENTS.

xxi

Page

| | |
|---|------------------|
| SECT. 6. <i>Use of Beer and Spirits—whether either, or which is encreasing</i> | 258 |
| SECTS. 7, 8, 9. <i>State of Roads and Bridges, of Navigations and Navigable Rivers, of Fisheries, and of Manufactures; or a general view of POLITICAL ECONOMY, as affecting Agriculture, or connected with it</i> | <i>ibid.</i> |
| SECT. 10. <i>State of Education, Schools, and Charitable Institutions</i> | - 274 |
| 11. <i>State of Absentee and Resident Proprietors</i> | - - <i>ibid.</i> |
| 12. <i>Circulation of Money or Paper</i> | <i>ibid.</i> |
| 13. <i>Farming or Agricultural Societies</i> | 275 |
| SECTS. 14, 15. <i>State of Manufactures, whether encreasing; of encouragement to them, and the peculiar aptness of the situation for their extension</i> | <i>ibid.</i> |
| SECT. 16. <i>Of Mills of every kind</i> | - <i>ibid.</i> |
| SECTS. 17, 18, 19, 20, & 21. <i>State of Plantations and Planting; of the effects of the encouragement heretofore given to them by the Society, particularized in the list annexed. Of any improvements which may occur for future encouragement, and particularly for the preservation</i> | |

| | | |
|----------------------|--|-----------|
| | <i>tion of Trees when planted. Of Nurseries within the County, and Extent of Sales. Price of Timber, and state of it in the County</i> | 276 |
| | <i>Premiums adjudged by the Dublin Society, for planting in the county of Armagh, since the year 1786, where security has been given to preserve the same for ten years from the date of the grant</i> | - 280 |
| SECTS. 22, 23, & 24. | <i>Quantity of Bog; possibility and means of improving it; obstacles to it, and best means of removing them</i> | - - ibid. |
| 25, 26. | <i>Habits of Industry, or want of Industry among the People.—The use of the English Language, whether general, or how far encreasing?</i> | - - 282 |
| SECT. 27. | <i>Account of Towers, Castles, Monasteries, Ancient Buildings, or places remarkable for any historical event</i> | - - 283 |
| 28. | <i>Churches—Resident Clergy—Glebes, and Glebe Houses</i> | - - ibid. |
| 29. | <i>Whether the County has been actually surveyed; when; and whether the Survey is published?</i> | - 284 |

CONTENTS.

xxiii

Page

| | |
|--|-----|
| SECTS. 30, 31. <i>Weights and Measures, liquid and dry; in what instances are Weights assigned for Measures, or vice versa?—The Weight or Measure, by which Grain, Flour, Potatoes, Butter, &c. are sold</i> | 285 |
| SECT. 32. <i>Of Mines within the County</i> | 286 |

CHAP. XI.

LIVE STOCK.

| | | | |
|--------------------------------------|---|---|--------------|
| SECT. 1. <i>Horned Cattle</i> | - | - | 288 |
| 2. <i>Horses</i> | - | - | 290 |
| 3. <i>Sheep</i> | - | - | 292 |
| 4. <i>Goats</i> | - | - | 293 |
| 5. <i>Hogs</i> | - | - | 294 |
| 6. <i>Rabbits</i> | - | - | 295 |
| SECTS. 7, 8. <i>Poultry, Pigeons</i> | - | - | <i>ibid.</i> |
| SECT. 9. <i>Bees</i> | - | - | 296 |

CHAP. XII.

GENERAL OBSERVATIONS.

299

PART

PART III.

CHAP. XIII.

BARONIAL SURVEY, INCLUDING THE ANTIQUITIES
OF THE COUNTY.

| | Page |
|--|-------|
| <i>Preliminary Observations</i> | - 301 |
| SECT. 1. <i>Barony of Armagh</i> | - 302 |
| 2. <i>Barony of Turenny</i> | - 328 |
| 3. <i>Baronies of Upper and Lower Fews</i> | 331 |
| 4. <i>Baronies of East and West O'Neiland</i> | 335 |
| 5. <i>Baronies of Upper and Lower Orior; including some curious and interesting particulars of the Lordship of Newry</i> | - 349 |

CHAP. XIV.

| | |
|-------------|-------|
| CONCLUSION. | - 394 |
|-------------|-------|

APPENDIX.

APPENDIX.

| | Page |
|---|------|
| <i>Extracts from Harris's Hibernica, and Captain Pynnar's Survey of Ulster ; in which are given the Names of the original Patentees of the forfeited lands of this County, and their de- nominations, with preliminary ob- servations</i> - - - | 1 |
| <i>Religious Houses of the County, from Ware's Antiquities of Ireland</i> - | 23 |
| <i>Religious Houses of the County, from Archdall's Monasticon Hibernicum</i> | 29 |

二
三
四
五
六
七
八
九
十
十一
十二
十三
十四
十五
十六
十七
十八
十九
二十
二十一
二十二
二十三
二十四
二十五
二十六
二十七
二十八
二十九
三十
三十一
三十二
三十三
三十四
三十五
三十六
三十七
三十八
三十九
四十
四十一
四十二
四十三
四十四
四十五
四十六
四十七
四十八
四十九
五十
五十一
五十二
五十三
五十四
五十五
五十六
五十七
五十八
五十九
六十
六十一
六十二
六十三
六十四
六十五
六十六
六十七
六十八
六十九
七十
七十一
七十二
七十三
七十四
七十五
七十六
七十七
七十八
七十九
八十
八十一
八十二
八十三
八十四
八十五
八十六
八十七
八十八
八十九
九十
九十一
九十二
九十三
九十四
九十五
九十六
九十七
九十八
九十九
一百

of the *COUNTRY* of

From ROCQUE'S SURVEY





STATISTICAL SURVEY
OF THE
COUNTY OF ARMAGH.

PART I.

CHAP. I.

GEOGRAPHICAL STATE AND MODERN CIRCUMSTANCES,
WITH OBSERVATIONS ON THE NATURAL HISTORY
OF THE COUNTY.

SECT. 1. *Situation and Extent.*

ARMAGH, which is an inland county of Ulster, lies between fifty-four degrees four minutes, and fifty-four degrees thirty minutes, of north latitude, and six degrees five minutes, and six degrees forty-five minutes, of west longitude from Greenwich : its form is rather oblong, stretching considerably in an angle, both on the north-east, and western extremities ; these narrow tracts, in the aggregate, will be found to add more than four minutes of longitude to the superficies of the county ; for, taking the average breadth of the surface of Armagh, it

is not more than twelve Irish miles, but its actual breadth from the two most distant extremities is full sixteen* miles; that is, from the bounds of Monaghan county on the west, near the village of Glaslough, to Scarvagh village on the east, which touches the Newry canal line, where it is separated from Down county; the variation of its length does not any where exceed much above one mile, the average extent of the county, in this direction, being very nearly twenty-four Irish miles; the most distant extremes, from Maghery village on the shore of Lough-Neagh on the north, to the townland of Dromlece near Foxfield on the south, joining the county of Louth, in a direct line, are but twenty-five miles asunder; the circumference of the county is about eighty Irish miles.

The superficial contents are 283 square miles, or 181,450 acres plantation measure; this in English measure will be 290,786 acres†.

It

* Doctor Beaufort, in the Memoirs of his map of Ireland, states this county but fifteen miles in breadth; but, by the actual survey, which was taken in 1778, it is laid down to be sixteen miles broad.

† In the rules and conditions for the plantation of Ulster, published by royal authority, anno 1608, it is asserted, that the whole county of Armagh contained but 77,800 English acres: in this was meant, arable, pasture, and forfeited lands only, so that the difference, being 212,986 acres, were then
the

It is bounded on the north-west by Tyrone county; on the west by Monaghan; Louth ranges the southern, as does Lough-Neagh the northern extremity; and Down, the full extent of the eastern confines.

From the south-western point of Lough-Neagh to Caledon, on the borders of Tyrone, the line of separation between Armagh and this latter county is the Blackwater river; another stream, which we also trace in a retrograde course, joins this river, marking the boundary on Monaghan side, from hence to a mile beyond Middleton village in the barony of Turenny, and is the same river, or rather chain of lakes, which runs through Castleshane village in that county. An angle of this river forms the point of junction with Armagh, Monaghan, and Louth counties, and touches the bounds of Cregan parish, near the village of Culloville.

The western limits are continued by poor fences, and naked ditches, for about four miles further, where a small stream, in some places but a ditch of water, is the line of division, passing through a bleak and wild country, and intersecting the Fews mountains in the same direction, until it meets a

B 2

very

the unforfeited and church lands, and also waste or unprofitable scopes which were never rented.

See Harris's *Hibernica*, part 1st, pages 60, 62, Dublin edition, printed anno 1747.

very rapid river, the Fane, which passes near Culloville on the south-western point, and from thence, touching on the south-eastern extremity of Monaghan, runs into Louth county, and is discharged into the bay of Dundalk.

The line on the southern boundary towards the shore opposite to Warren Point, which separates this county from Louth, for the greater way, is but imperfectly traced, through a very wild, and in some places a barren district, and in this bleak region can be, but with difficulty, if at all, truly ascertained, where nothing is presented, but the immense rocky mountains, which stretch onwards towards Carlingford; but the eastern limits, from the tide water to Knock bridge, within a few miles of the south-east angle of Lough-Neagh, are doubly marked by the line of navigation, which separates this county from Down, and the river it adjoins, and runs parallel with, in some places, but a few yards asunder; from the point where the canal meets the Bann, at Knock-bridge, near Carrick demesne, the remaining part of the boundary is through a very beautiful and highly improved country, extending considerably in an eastern direction, and from hence to Lough-Neagh forming an obtuse angle, in which the town of Lurgan is included: the entire northern limit is the shore of Lough-Neagh; so that, on the whole, the bounds of this
county

county are well marked, and for the most part distinguished by strong and natural features.

SECT. 2. *Superficial Appropriation.*

THE superficial appropriation of Armagh may be thus estimated:

| | <i>Acres.</i> |
|--|---------------|
| Arable lands, pasture, and meadow, . . | 157,450 |
| Rivers and lakes* | 1,000 |
| Roads, towns, and villages, | 2,000 |
| Woods and plantations, | 1,000 |
| † Mountain, bog, and waste, | 20,000 |
| Total plantation acres | 181,450 |

Inequality

* There is no part of Lough-Neagh comprehended in this calculation, which covers an immense tract, not less than an area of above one half the extent of the smaller counties of Ireland. Louth, which is the smallest, does not contain more than 110,750 acres of every description, and Longford has but 134,152. The area of Lough-Neagh has been in all the old maps laid down as containing nearly 100,000 acres, but the late surveys deny that it covers quite 60,000 acres. If the lands around this lake, which are subject to its floods, should be taken into account, the product would even exceed the greater calculation; for in Down county, where the land lies on the shore of Lough-Neagh, at no less distance than eight miles from thence, its waters have frequently overflowed to a very alarming degree.

† A considerable quantity of land, which formerly was rated as mountain and waste, does not now come under that denomination.

Inequality of surface is a predominant feature through every part of Armagh, except in the northern district, where it gradually terminates in a plain, and is there a fine flat champaign country.

But though the greater part of the country has an undulating surface, it serves to add to its beauty, as those hills are mostly very gentle, and possess a very generous and fertile soil; in many places, judicious plantations and comfortable orchards highly enrich the scene. Contrasting these cultivated lands, and their neat inclosures, with those of the like natural feature in some neighbouring counties, we cannot attribute the bleak and inhospitable appearances of the latter to any thing but a neglect of that industry, which here has so conspicuously beautified the country; and these natural features must every where be considered as a great capability, towards the actual, as well as the ornamental improvement of a country.

This irregularity of surface is obvious through the interior. I have already shewn that the mountainous district, which in some places is beautifully picturesque, lies on the borders of the county.

SECT.

denomination. In the midst of the wildest districts, are large tracts of good pasture and arable land.

SECT. 3. *Civil Division.*

THIS county formerly consisted of five baronies,* three of which have been subdivided; it therefore now contains eight baronies.

- | | |
|---------------------------------|---------------------|
| 1. Armagh, | 1. Armagh. |
| 2. Turenny or Tyranny, | 2. Turenny. |
| 3. O'Neiland, <i>now divid-</i> | { 3. O'Neiland E. } |
| <i>ed into</i> | { 4. O'Neiland W. } |
| 4. Fews, <i>now divided</i> | { 5. Upper Fews. } |
| <i>into</i> | { 6. Lower Fews. } |
| | 5. Orior, |

* In the survey made by Pynnar, in 1618, it is to be observed, he divides Armagh into three baronies only, viz. O'Neiland, Fews, and Orior; I could not ascertain whether Armagh and Turenny had been at that time distinct baronies; if they were forfeited lands, doubtless their denomination, as separate baronies, had not then existed, as his survey relates particularly to the lands, which were escheated to the crown; but in the project, which was published by order of James the 1st. setting forth the intended plantation of Ulster, and also the rules and conditions to be observed by undertakers, (which was of the date of 1608, and of course ten years prior to Pynnar's survey,) it is stated, that Armagh county was at that time divided into denominations of land termed Ballyboes, each of which contained about sixty English acres, on an average; but, as these denominations were not found to be of equal quantity, or number of acres, it was judged proper to abolish this distinction, and

The annexed is the key of assessment.

| <i>Proportion of every pound sterling, raised off the county at large.</i> | | <i>£. s. d.</i> |
|--|---------------------|-------------------------|
| <i>No. Baronies.</i> | | |
| 1. Armagh, | pays at the rate of | 0 . 4 . 8 $\frac{1}{4}$ |
| 2. Turenny, | ditto, | 0 . 2 . 5 $\frac{1}{2}$ |
| 3. O'Neiland, E. | ditto, | 0 . 1 . 6 $\frac{3}{4}$ |
| 4. O'Neiland, W. | ditto, | 0 . 4 . 7 $\frac{1}{4}$ |
| 5. Upper Orior, | ditto, | 0 . 1 . 8 $\frac{1}{4}$ |
| 6. Lower Orior, | ditto, | 0 . 2 . 8 |
| 7. Upper Fews, | ditto, | 0 . 0 . 9 |
| 8. Lower Fews, | ditto, | 0 . 1 . 7 |
| | | <hr/> |
| | | £. 1 . 0 . 0 |

SECT. 4. *Ecclesiastical division.*

IN this county are twenty-one parishes, seventeen of which are entirely within the county, two partly in the county of Tyrone, and two branching into Down. Of these twenty-one parishes, three are in the diocess of Dromore, which have each parish churches, and the remaining eighteen, with twenty-seven churches, are in, and make a part of, the archbishoprick of Armagh. The churches are in excellent, indeed, mostly, in elegant repair.

Alphabetical

Alphabetical List of Parishes within the County.

1. Armagh, a rectory united with the deanery, in the diocese of Armagh, and baronies of Armagh, Upper Fews, and O'Neiland west. Yearly value 1400*l*. Lord Viscount Lifford, incumbent, who resides. The parsonage and glebe are both excellent. A considerable quantity of deanery lands are let at low rents, and renewed like bishops' leases. Four perpetual cures are annexed to this parish, which have small glebes and parsonages. 1. Lisnadill, 2. Grange, 3. Newtown-Hamilton, 4. Eden. Eglish is annexed to the choir of the cathedral. The church and parsonage of Lisnadill were erected by the late Lord Rokeby during his primacy, in a style truly characteristic of their noble founder. The first fruits of this parish are 25*l*.

2. *Ballymoier*, alias *Ballywire*, a rectory in the diocese of Armagh, and barony of Upper Fews. Yearly value 180*l*. The Rev. Mr. Paul, incumbent, who resides. This parish has a handsome parsonage, and small glebe, and the entire parish was originally a part of Armagh parish.

3. *Ballymore*, alias *Tanderagee*, a rectory in the diocese of Armagh, and barony of Lower Orior. Yearly value 900*l*. The Rev. Doctor Leslie, who died lately, was presented to this benefice by his
 grace

grace Doctor Sterne, primate, anno 1757, and was forty-five years rector of this parish. He discharged the duties of his situation in so exemplary a manner, that his memory will be revered by every person who knew him. An elegant parsonage and glebe is contiguous to the town of Tanderagee.

The Doctor procured a second church to be built in this parish, as a chapel of ease, at Poyntz's pass, and established a perpetual cure with a neat house, and a small glebe for the curate. The late incumbent constantly resided. First fruits, 13*l.* 6*s.* 8*d.*

4. *Cregan*, a rectory in the diocess of Armagh, and baronies of Upper and Lower Fews. Yearly value 700*l.* The Hon. and Rev. Percy Jocelyn, incumbent, who resides. In this parish is a good parsonage, and extensive glebe, but the land is indifferent. A charter school was established here for thirty children, anno 1737, and endowed with three acres of land in perpetuity, one by the late Rev. Hugh Hamill, D. D. when incumbent, who also subscribed 5*l.* annually; another by the late Francis Hall, Esq. and a third by the late Thomas Ball, Esq. First fruits of parish 25*l.*

5. *Derrynoose*, alias *Madden*, a rectory in the diocess of Armagh, and baronies of Armagh and Turenny. Yearly value 700*l.* The Rev. Mr. Staples, incumbent, who resides. In this parish is an old, but neat parsonage, and a glebe. First fruits 20*l.*

6. *Drumcree*,

6. *Drumcree*, a rectory in the diocese of Armagh, and barony of O'Neiland west. Yearly value 450*l*. The Rev. Mr. Maunsell, incumbent, who resides. In this parish is an old parsonage, and some glebe. First fruits, 18*l*.

7. *Forkhill*, a rectory in the diocese of Armagh, and barony of Upper Orior. Yearly value 250*l*. The Rev. Mr. Atkinson, incumbent, who resides. In this parish is a neat small parsonage, and a small glebe; a very considerable charity has been established under an act of parliament, springing from a most extraordinary will, made by the late Richard Jackson, Esq. of Forkhill. For particulars, see chap. 13, sect. 5. *Orior*.

8. *Keady*, a rectory in the diocese of Armagh, and baronies of Armagh and Fewes. Yearly value 200*l*. The Rev. Mr. Close, incumbent. The curate resides in the small parsonage, to which there is a glebe annexed. This parish was formerly part of Armagh parish.

9. *Killery*, a rectory in the diocese of Armagh, and barony of Upper Orior. Yearly value 1300*l*. The Rev. Mr. M'Clelland, incumbent, does not reside here, but in the town of Armagh, where he has a parsonage, as precentor to the cathedral. No parsonage for the rector in this extensive parish; but at Camlough near Newry a new church has been lately built, as a chapel of ease, and a small house

house for the curate who resides ; a small glebe has also been laid off. The rector's glebe lands are extensive. First fruits, 20*l*.

10. *Killmore*, a rectory in the diocese of Armagh, and baronies of O'Neiland west, and Lower Orior. Yearly value, 1100*l*. The Rev. Doctor Lodge, incumbent, who resides occasionally here in summer, and in Armagh city in winter, at the public library ; he is librarian. In this parish is an excellent new parsonage, and a fine glebe.

It has also a chapel of ease at Mullavilly, near Tanderagee town, called New church, which was built about the year 1755, at the sole expence of the Rev. Doctor Brandreth, Dean of Emly, the then incumbent, and the ground was given by the then Lord Viscount Fane, on whose estate it was built. First fruits of this parish 18*l*.

11. *Loughgall*, a rectory in the diocese of Armagh, and barony of O'Neiland west. Yearly value 450*l*. The Rev. Mr. Bissett, incumbent, who resides occasionally here, and also at the parsonage and glebe of his other parish in the county of Louth, near Drogheda. In this parish is a very neat parsonage, and good glebe, and a new and very handsome church has been lately built.

12. *Loughguilly*, a rectory in the diocese of Armagh, and baronies of Lower Fews and Lower Orior. Yearly value 750*l*. The Rev. Dean Warburton

burton, incumbent, who resides in an excellent parsonage, to which a good glebe is annexed. It has also a chapel of ease at Drumbanagher. First fruits of parish, 20*l*.

13. *Mullabrack*, a rectory in the diocess of Armagh, and barony of Lower Fews. Yearly value, 1100*l*. The Rev. Doctor Hamilton, incumbent, who resides occasionally here, and at the observatory, near Armagh, of which he is astronomer. In this parish is a good parsonage, and a glebe of about 1200 acres. A chapel of ease has been lately built at Kilcloney, between Keady and Market-hill. First fruits of parish, 16*l*.; of this sum 6*l*. for Kilcloney, which was united.

14. *Segoe*, a vicarage in the diocess of Dromore, and baronies of O'Neiland, east and west. Yearly value, 500*l*. The Rev. Mr. Blacker, incumbent, who resides. This parish has an excellent parsonage and glebe: it has also a perpetual cure at Muntuaghs, alias Mointagles, value, 120*l*. Part of the emolument of this cure arises from the first fruits office. First fruits, 4*l*.

15. *Shankhill*, alias *Lurgan*, a rectory in the diocess of Dromore, and barony of O'Neiland east. Yearly value, 500*l*. The Rev. Mr. Waring, incumbent, resides on his estate in the county of Down. There is no parsonage or glebe in this parish. First fruits, 6*l*.

16. *Tartaraghan*,

16. *Tartaraghan*, a rectory in the diocess of Armagh, and barony of O'Neiland west. Yearly value 300*l*. The Rev. Mr. Jephson, incumbent, who has a parsonage and glebe.

17. *Tynan*, a rectory in the diocess of Armagh, and barony of Turenny. Yearly value 900*l*. The Rev. Mr. Quin, incumbent, who resides. In this parish is a very elegant parsonage and glebe, and it has a perpetual cure at Middleton, where a very handsome new church and extensive parsonage has been lately built; a small glebe is annexed. For particulars of an extensive charity, affecting the lands of Middleton, bequeathed by Archbishop Sterne, see chap. 13, sect. 2, Turenny. First fruits of parish, 20*l*.

Parishes which branch into this County.

1. *Clonfeacle*, a rectory in the diocess of Armagh, and the counties of Armagh and Tyrone. The greater part is in Tyrone, and barony of Dunganon; the lesser in Armagh, and baronies of Armagh and O'Neiland west. The parish church is at Benburb, on the borders of the two counties; the parsonage and glebe in Tyrone. The Rev. Doctor Richardson, late a Fellow of Trinity College, Dublin, incumbent. The value of this living in Armagh.

māgh county is very small. The patronage is in the College. First fruits, 16*l*.

2. *Killyman*, a rectory in the diocess of Armagh, and counties of Armagh and Tyrone; the greater part is in Tyrone, and barony of Dungannon; the lesser in Armagh, and barony of O'Neiland east. The Rev. Mr. Caulfield, incumbent. The church, parsonage, and glebe, are in Tyrone county. The value of this living in Armagh is very small.

3. *Magheralin*, a rectory in the diocess of Dro-more, and counties of Armagh and Down. The greater part is in Down, and barony of Upper Iveagh. The lesser part in Armagh, and barony of O'Neiland east. The church, glebe, and parsonage are in Down county. The value of this living in Armagh is very small. First fruits, 5*l*.

4. *Newry*, a lay-rectory in the diocess of Armagh, and counties of Armagh and Down. The greater part is in Down county, and the entire parish is in the lordship of Newry, which extends into Upper-Iveagh in Down, and into Upper Orior and O'Neiland west in Armagh. The church is in Down county. The lord of the manor is rector, and his vicar is the Rev. Doctor Campbell, who resides; but there is no glebe or parsonage. Grange, near Loughgall, is a part of this parish, and was formerly the grange of the old abbey of Newry. For curious ecclesiastical privileges, and immunities, which
the

the rector of this parish enjoys, see chap. 13, sect. 5, *Lordship of Newry*.

*References to Ecclesiastical Denominations, which
are not distinct parishes.*

- Ballywire, see Ballymoier parish.
- Benburb, see Clonfeacle parish.
- Camlough, see Killevy parish.
- Drumbanagher, see Loughguilly parish.
- Eden, see Armagh parish.
- Eglish, see Armagh parish.
- Kilcloney, see Mullabrack parish.
- Lisnadill, see Armagh parish.
- Lurgan, see Shankhill parish.
- Madden, see Derrynoose parish.
- Middleton, see Tynan parish.
- Mointagles, see Segoe parish.
- Mullavilly, see Kilmore parish.
- Muntuaghs, see Segoe parish.
- New Church, see Kilmore parish.
- Newtown-Hamilton, see Armagh parish.
- Poyntz's Pass, see Ballymore parish.
- Tanderagee, see Ballymore parish.

Archbishoprick, or province of Armagh.

The archbishoprick of Armagh is one of the four ecclesiastical provinces of Ireland.

The archbishop is styled Lord Primate of all Ireland; he has in his province seven bishops, whom he presides over; as to his own see of Armagh, he holds his visitation annually, but as to his suffragans, triennially only.

The following tables are taken from Doctor Beaufort's memoirs of his map of Ireland.

In the province of Armagh are 10 dioceses.

1. Archbishoprick of Armagh.
2. Bishoprick of Ardagh.*
3. —————Clogher.
4. —————Connor.
5. —————Derry.
6. —————Down.
7. —————Dromore.
8. —————Kilmore.
9. —————Meath.
10. —————Raphoe.

The

* Ardagh, though in this province, is now annexed to the archbishoprick of Tuam.

The archbishoprick of Armagh extends into five counties, is fifty-nine miles from north to south, and, in breadth, from ten to twenty-five miles, or, in English measure, seventy-five miles long, and from twelve and a half to thirty-two broad.

| Counties. | Acres. | Parishes. | Benefices. | Churches. | Glebe* houses. | Glebes only. | Benefices without glebes. | Rectories impropriate. | Wholly im- propriate. |
|--------------|---------|-----------|------------|-----------|-------------------|--------------|---------------------------------|---------------------------|--------------------------|
| Armagh, | 170,850 | 17 | 17 | 23 | 23 | 1 | 1 | 0 | 0 |
| Londonderry, | 25,000 | 5 | 5 | 6 | 4 | 1 | 0 | 0 | 0 |
| Louth, | 108,900 | 61 | 28 | 20 | 11 | 5 | 13 | 12 | 9 |
| Meath, | 13,300 | p. of 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tyrone, | 162,500 | 20 | 19 | 20 | 13 | 6 | 0 | 0 | 0 |
| Total | 468,550 | 103 | 69 | 69 | 51 | 13 | 14 | 12 | 9 |

The average number of acres to each church, in the archbishoprick, are 6,761, and the proportion of impropriations 4,90.

The average number of acres to the ecclesiastical province of Armagh, are 9,684, and the proportion of impropriations 3,43; the total number of acres, in the ecclesiastical province, are 4,319,250; of pa-
c 2
rishes

* Four of these glebe-houses are in the perpetual cures, into which the parish of Armagh is divided, and there are five more appropriated to the choir.

It is at present in contemplation, to have a glebe and parsonage appropriated to every church in this diocess, or, at least, to every benefice.

ishes 663; of benefices 419; of churches 446; of glebe-houses 212; of parishes with glebes only 156; of benefices without glebes 83; of rectories impropriate 133; and of parishes wholly impropriate 60.

The crown has the patronage of thirteen parishes, the Lord Primate of sixty. The university of Dublin presents to three, and the remainder have lay patrons.

Table of first fruits of the ecclesiastical benefices of the archbishoprick of Armagh, from the original record, copied in a tract which has been published entitled, Valor Beneficiorum Ecclesiasticorum in Hibernia.

Diæcesis Armachana.

Extenta et taxatio dignitatum et beneficiorum spiritualium in diœcesi prædicta, facta per Georg. Miden, et Fran. Aungier, Commissionarios Regis Jacobi primi 15mo Anno Regni.

Archiepiscopus

OF THE COUNTY OF ARMAGH. 21

Archiepiscopus Armach. ita taxatur, ultra omnia onera et reprisas.

| | £. | s. | d. |
|--|------|----|----|
| Maner. Termonfeighan, - - - - - | 23 | 18 | 6 |
| —— Dromiskin, - - - - - | 14 | 1 | 6 |
| —— Kilmoone, - - - - - | 5 | 0 | 0 |
| —— Eniskeene, - - - - - | 10 | 0 | 0 |
| —— Turlough, - - - - - | 0 | 0 | 0 |
| —— Donoughmore, in Com. Dunen. | 10 | 0 | 0 |
| —— Ardtra, - - - - - | 98 | 0 | 0 |
| —— Donoughmore, in Com. Tyron. | 70 | 0 | 0 |
| —— Armachan. - - - - - | 140 | 0 | 0 |
| Duae tertiæ manerii de Nobber, - - - | 5 | 0 | 0 |
| R. impropriatæ de Athboy, in Com. Miden. | 10 | 0 | 0 |
| Castrum et terræ de Concestor, - - - | 2 | 0 | 0 |
| Priorat. Sti Andreæ, vulgo de Black Abbey, | 0 | 0 | 0 |
| Messuagium cum gardino in villa de | | | |
| Drogheda, - - - - - | 2 | 0 | 0 |
| Proficua spiritual. jurisdict. archiepiscopat. | 10 | 0 | 0 |
| <hr/> | | | |
| In toto | £400 | 0 | 0 |
| <hr/> | | | |
| Archiepis. taxat. alibi, 30 Hen. VIII. | 183 | 17 | 1½ |
| Decanatus Armach. - - - - - | 35 | 0 | 0 |
| *Archidiaconatus Armach. - - - - - | 2 | 0 | 0 |

SECT.

* Note : here follow the sums annexed to each parish in the diocess; in the tract, the first fruits of this county are marked in the alphabetical list of parishes, *ut supra*.

SECT. 5. *Climate.*

IN this district, the climate is perhaps more favourable than in most of the other counties in Ulster. First, from the nature of its soil, which, in general, is not retentive, but tilly and warm; secondly, because the north-east winds, which blow in spring, have no mountains to interrupt their passage, until they arrive at the further verge of the county, where, for the first time, the clouds are impeded by the Fews mountains, whose falls are rather to the western side of the mountain; thirdly, the gentle undulation of the surface with regular falls to the valleys, where there are numerous rapid streams to carry off all superficial water; fourthly, the substratum being gravel or limestone, in many places; and fifthly, because there is little or no marsh in the county. To these causes may also be taken into account, the great temperature obtained by partial and judicious shelter, and, perhaps, no where in Ireland, is this improvement more eminently conspicuous, than in the greater part of Armagh county, where, for a very extended district, few even of the peasants' houses, but have the shelter of an orchard, to protect them from the cold blasts of winter, and their little farms are admirably

admirably fenced with great care and neatness. The lofty mountains in the county of Down, from Mourne to Slieve-Croob, which extend in a south-eastern direction from Carlingford Bay, so as to completely shelter Armagh, from north to south, arrest the heavy clouds, and violent gales, which are impregnated with moisture from the channel, and the whole southern extremity is shut out by that range, from Slieb-Guillen to the Fews.

The south-east winds are always most violent and lasting, and accompanied with torrents of rain, nor can fair weather be expected from this quarter; these winds are prevalent during the winter months, nor do they abate oftentimes till the spring is far advanced; but from the good tilth of the soil, the business of agriculture is seldom impeded by them. This cause, together with the warmth of the soil, may be alledged, why the harvest is earlier here, by perhaps ten days or a fortnight, than in some neighbouring counties; the difference of forwardness in the seasons, between the more northerly and southerly extremes of this small county, proves, that it is elevation of surface, and a retentive soil, which retards the harvest, and not the trifling difference of latitude, which could exist in a tract of twenty-five miles distance. The foliation of trees, if exposed, is a good criterion of climate; but in plantations those trees best sheltered will
many

many days sooner expand, than the same genus in a very remote and more southerly latitude, which have not the advantage of shelter.

A continuance of north-easterly winds in March is most pernicious, and very materially retards vegetation; to fruit-trees they are most hurtful, and indeed to every kind of horticulture; it has been remarked, that these winds are of late years more severe, than have been remembered: until lately, the best agriculturists have agreed, that they were propitious both for vegetation and for rural labour, but it is very certain, that our climate has latterly been more harsh, and our seasons less steady; and this same variability and severity is complained of in every northern latitude, and even in countries more southerly than the British isles. Perhaps, this change has been gradual, though latterly more rapid; for it is well known, that on some of our highest mountains trees will not now flourish, although in removing but a little soil we find immense trunks, which prove these lands to have been formerly in forest. If the soil in such places was invariably boggy and antiseptic, we could account for its change to that property, which must have been imparted to it from the timber; but I have seen various kinds of elevated soils, where no antiseptic or boggy particle existed, and which had formerly been in forests, yet no tree would now thrive in such places,

places, though attended by judicious and careful planters; this remark is strongly justified by many reports of the like failure of plantations, in more northern countries of Europe, and that some delicate plants, which were once indigenous, must be now sought for in more temperate climates.

That our climate is considerably altered, is very certain, and it is no less so, that we have not profited by the change. Fevers are more prevalent than formerly; chronic complaints are more numerous and violent, and a long train of nervous disorders have been engendered, which but lately have had a name.

In a variable climate, that district must be most favoured, whose soil is warm and tilly, and which has natural barriers to defend it from the inclemency of storms. Both of these advantages Armagh happily possesses, nor are numerous instances of longevity wanting, to prove that its climate is not less salubrious, as its soil is unquestionably far more fertile, than we find in the greater part of the surrounding districts.

SECT. 6. *Soil and Surface.*

THIS county has, generally speaking, a very fertile soil, in a great portion of its land extremely so; but

but there is some variation ; yet very few tracts are unfit for the purposes of husbandry, and the proportion but very trifling, where tillage could not be successfully prosecuted.

Taking a distinct view of the soil of this county, and commencing northward at the barony of O'Neil-land east, we find the superficial stratum a rich brown loam, which is tolerably deep ; the substratum clay, or gravel, but little or any calcareous matter, except it is very deep, and only partially found.

On the estate of William Brownlow, Esq is a limestone quarry, but in a flat low country, very little elevated above the level of Lough Neagh ; but there is so heavy a bearing of soil over the quarry, and so great a flow of water when this is removed, that this fossil will not repay the expence of working it ; so that there is no limestone raised in this part of the country, though much is brought in for manure from a considerable distance.

The soil, when assisted with this powerful manure, will produce any crop in great abundance ; here, it is principally under wheat tillage, which it yields very amply, though their system of farming is not to be recommended, as they almost invariably sow their wheat in a potatoe fallow.

The surface of some marshy tracts is a light moor, covering a whitish or a yellowish clay equally bad,
which

which they have not materials to effectually improve, as limestone-gravel, &c. but yet there is a sufficient fall for draining, and it has capability of being converted into good pasture.

In this district, there is also a considerable quantity of bog, which yields red ashes, and is very reclaimable. In that part of this barony, which lies towards the town of Armagh, the soil is a rich limestone.

The general description of Orior barony, or the eastern district, is a light soil, and has a stony earth, which is friable, but no limestone; varying from a siliceous schistus to an argillaceous stratum, and frequently a slaty subsoil.

All these soils are improveable by lime, which is the great and effectual manure, and although it is at a considerable distance from some parts of the barony, yet by the Newry canal, which ranges this whole district, they can easily be supplied; the cost of the stone at Carlingford is 4s. per ton, and the expence of freight is very trifling; there is no toll on the navigation for manure, the property of the canal not being vested in a private company; but this will be particularly explained under the head of navigation.

Neither has the southern part of this county any calcareous matter, excepting on the borders of Louth, where the country is rocky, barren, and
mostly

mostly unfit for the uses of husbandry, and is well defined as barren mountain ; here, huge rocks of hard grit are seen promiscuously mixed with blocks of limestone, as if by some convulsion of nature they were accidentally thrown together ; nor is it easy to distinguish the difference in these rocks, without breaking them, they are so alike in their exterior appearance ; but the limestone is only found on the verge of the county, for there is none in the interior of these mountains, nor from thence to Slieve-Guillien, and throughout the Fews, the stone of these districts being either a very brittle and decayed freestone, with a ferruginous tinge, or a hard stone, which is of a shade between dark blue and green, and, when viewed in different lights, seems to change from one to the other colour, and which has the general name of *whin-stone* through this county, and many other parts of Ulster, where it is found : this stone, therefore, probably is not homogeneous, but in its analysis it contained a very small particle of calcareous matter, only 4 parts in 100, nor will it give fire when struck with the steel, though it has all the hardness of flint. If *whin-stone* is the proper name of this fossil, it differs from that which is so called in Scotland, as described in Williams's natural history of the mineral kingdom. He calls this species of fossil the roof of coal mine ; that it is of a flinty hardness,

is black, blackish grey, brown, and red; he also distinguishes another kind of this fossil, whose colours are grey and black, and are actual basaltes; the grey receives the highest polish, and the black takes a good polish, and is unfading: this species, he tells us, is called *skurdy* in the north part of Scotland, and *cockle* in Cornwall; but the best mineralogists deny that cockle or shirl should be ranged under basaltes.

The gentleman, who favoured me with the analysis, his modesty not permitting his name to be mentioned, lest he should be inaccurate, says, that in 100 parts of the whin-stone, of this county, he found it to contain,

Siliceous earth 46

Argillaceous 22

Iron 28

Calcareous 4

100

It is to be remarked, this fossil is not found in regular strata like quarries, but in large blocks and boulders, and frequently huge long stones, perhaps of some tons weight; and of such nature are those great stones, that are set upright, which frequently encircle a Druids temple, or support the altar or sepulchral flag. Except on the borders of

Louth

Louth county, I never saw limestone in the same district with this fossil.

The western borders, and the middle district of the county, are of a limestone soil, on the line from Monaghan county towards Armagh; it is of a very good quality and white colour; from thence to the town, it is tinged with red, and gradually possesses that colour very strongly; the redder it becomes, it possesses the properties of marble still more, taking a polish, but is less calcareous than the white limestone.

Almost the whole of the barony of Armagh possesses this valuable fossil, and in many partial spots are very great quarries of the white species, but it is never found in pebble or boulders in that district, where the red colour is predominant: some limestone of a pearl colour is also found in loose masses, and a great deal which is variegated with many colours, which is very good marble, and is that description which is called plumb-pudding marble, from its similitude to it in its spots and dapples.

All this region is very grateful in tillage, and also in meadow, when manured, but the best natural meadows are on the banks of rivers, and have a very deep brown loam, yielding great crops without any manure.

The

The natural herbage of the soil is,

Poa pratensis, or, meadow grass.

Alipcurus pratensis, or, meadow foxtail.

Poa trivialis, or, rough stalked meadow grass.

Avena flavescens, or, yellow oat grass.

Festuca ovina, or, sheeps fescue grass.

Cynosurus cristatus, or, crested dog-tail.

Anthoxantum odoratum, or, sweet scented spring
grass.

Festuca loliacea, or, darnel fescue grass.

Triticum repens, or, couch grass.

Trifolium pratense, or, red clover.

But a very few noxious weeds are seen, as the constant tillage, and corn crops generally succeeding potatoes, keep their fields tolerably clean, considerably more so than in great corn countries, where the enclosures are large; they seldom weed up any but nettles and thistles; if a stubble field should be left a year in cashier fallow, which is seldom the case, the crow-foot and tansy soon overspread it, and are very difficult to be eradicated; these matters will, however, come under consideration more particularly in another section.

The hilly district is generally of a deep and retentive soil; yet the substrata are frequently gravel, which, though not calcareous, would by proper application effect all the mechanical assistance, which would so abundantly improve the soil, by
rendering

rendering it more tilly and open: a decayed free-stone gravel, and highly tinged with ferruginous ore, is partially found in this region; and here are frequently slaty subsoils. Heath is particularly vigorous in these places, nor have many years elapsed, since the hills between Tynan and Keady, now in such good culture, were entirely covered with this plant, which was destroyed by liming, and this manure was carried from a good distance.

There are few moory hills, I mean of turf-moor, but abundance are yet clothed with heath-moor, and wild pasturage, ferns, small whins, &c.

The valleys have naturally a rich and loamy soil, very grassy, though neither marshy nor yielding many aquatic plants; the poa fluitans, or, water fescue grass, is most luxuriant and rampant.

The south side of the hills have the best natural grasses, and farmers assert, that cattle will reluctantly leave this aspect, for a fresh pasture on the north side.

This description of the soil of this county must only be considered as applying generally; where there is so great a variety, it would be an endless task to enumerate distinctly: a sandy loam is perhaps less met with throughout, than any other kind of soil, though, in general, loam is predominant; fortunately, its subsoil is not retentive.

The

The surface, which is beautifully irregular, points out the easiest method of draining, and has great capabilities in various places for the most approved methods of irrigation. As yet, the treasures, which may be embowelled in the hills, have been, if at all, but very superficially explored.

The best criterion to judge of the fertility of the soil must be the general produce, which in this county has a very high reputation, and on the average return will not be found inferior, after a judicious culture, to that of the best counties of Ireland.

Mountains.

The principal mountains in Armagh, in point of extent, are the Fews, which range the southern and western limits, stretching into the interior; the highest mountain in the county is some miles from the borders; it is called Slieb-Gullyn, or Slieve-Guillien. It is considered the loftiest in Ulster, excepting Slieve-Donard in the neighbouring county of Down, and viewing the latter from Slieve-Guillien it does not appear so high. As Slieve-Donard stands so abruptly on the sea coast, its apparent height must be considerably encreased, and Slieve-Guillien from its interior situation, amongst other lofty mountains, must in the like ratio be reduced

in our sight : from the eastern part of the county of Cavan, the latter is distinguished almost every day in the year, from a distance of about thirty miles ; yet Slieve-Donard, which in a right line is but nine miles further distant from the same place, cannot be discerned even with a good telescope. I have been told that, from another point of view, the summit of Slieve-Guillien is easily seen with the naked eye, though at a more considerable distance from the place of observation than Slieve-Donard, when this latter mountain cannot be distinguished but with a glass ; this, if correct, which I do not assert to be so, is a certain proof of the superior elevation of the Armagh mountain ; snow will remain for months on this, after the former has resumed its verdure, but this is certainly no proof of greater height, as the saline particles will naturally dispel the snow.

From Slieve-Guillien to the Fews, the country is bleak, wild, and hilly, and in many places may be truly termed mountainous, and, in this sense, may be considered as connected to the Fews by the chain of abrupt hills from Forkhill to Crossmaglin ; but by being more lofty, it of course displays more of the nature of primitive mountain, and we can safely pronounce the greater part of it can never be brought into cultivation, but must eternally remain in its natural sterility.

Yet

Yet in these wild and romantic scenes, there is something very interesting, awful, and grateful to our senses, elevating the inquisitive mind, and inspiring a strong desire to explore their inmost recesses, and an anxiety to become familiar with so sublime a solitude.

It requires but little attention to its examination, to pronounce Slieve-Gullien under that description, which naturalists term primitive mountain, or of that kind which possesses a majestic eminence, and covers so immense an area, as to date the origin as certainly antediluvian. These properties are eminently attached to this celebrated mountain; its contiguity to the neighbouring chain of the lofty Mourne mountains, its connexion with those of the Fews, which have so vast an area, and more particularly the nature of its soil, all concur to rank it under the distinction of primitive mountain: here we see no rounded pebbles, sand, or marine particles, no accumulation of foreign substances, except probably they may be at the base, which does not contradict the assertion.

Rocks, caverns, glyns, from a bold ascent, are the features of the summit of the mountain, without the smallest appearance of any calcareous matter; and although there have not hitherto been any minerals discovered here, yet there is a strong probability of their existence, from the metallic tinge

of the waters, which burst from its sides, and ooze in plentiful discharges in times of the greatest drought.

The granite argillite, which generally indicates a metallic district, and is peculiar to primitive mountain, is found here, and also a brown freestone decayed on the surface, where the torrents have denuded the rock and carried off the soil; mica and felspar, in small quantities, are frequently intermixed with the fossil.

The general character of the soil is deep and boggy, yet firm in the surface, highly antiseptic, and covered thickly with heath; the substratum, a loose, decayed, brown freestone gravel, pretty regular, except when sudden torrents or subterraneous waters have discomposed it; in general their strata are of equal thickness and lie in parallel directions.

The plain, from whence the ascent of Slieve-Guilien commences, until the summit is gained, is, properly speaking, from the valley, wherein the town of Newry stands; and in support of what I have already surmised as tending to confirm its primitive claim, it is from hence also, that the ascent is gradual to the Mourne mountains on the eastern extreme; nor is it a very distant period since all the lands around Newry, excepting only the town parks, exhibited a wild and uncultivated waste, yielding

yielding spontaneously nothing but heath, coarse grass, and mountain plants. This valley forms an obtuse angle with these two ranges of mountain, and is above four miles distant in gradual ascent, until the acknowledged base of Slieve-Guillien is arrived at, where the region around fully corresponds with our ideas of wild and awful scenery.

From this base, the ascent is tedious, in some parts very steep and abrupt, and above two miles distant from the summit. Before the main point is gained, another pinnacle, which very much resembles it, is presented to view; from hence to the main point is a range of elevated ground in a circular direction, serving as a barrier to a small amphitheatre, within which is a lake of tolerably good water; its shore clearly proves, that it is subject to swells of some feet perpendicular height above the usual level. We cannot conceive, that such great floods could be soon occasioned by the rain water, which may fall on the small portion of surface, that is above the level of this lake, and it is a matter of curiosity, how they are supplied: there is a redundancy of water-courses towards Camlough lake, which is at the foot of Slieve-Guillien, and is the reservoir of that stream, which works so many mills in the vicinity of Newry, as will be more particularly detailed in the thirteenth chapter, fifth section.

The

The pinnacle, or capital point of Slieve-Guillien is a cairn of stones, which form the roof of a cavern, that, at first view, appears to be natural, but on minute examination has very evident testimonies of the work of art; perhaps it is indebted to both for its appearance.

The cairn is rather convex at top; in the centre is the mouth of the cavern; the roof is formed by large flat stones, regularly placed to support the incumbent weight, and in the descent lapped over each other with a sufficient bearing. I have been told that within is a specious apartment, and that, but a few years ago, it was easily entered; but now there are such huge blocks rolled in, and the entrance is so very narrow, that they could not be removed but by mechanic powers. From the mouth of the cave there extends a wide and regular range of flagging to the edge of the lake, evidently the work of hands; it is said by the peasants in this district to be the roof of a covered passage, but this seems very improbable, as the soil here is a deep wet bog, which could not bear an excavation to support so great a weight as these flags must have; it rather appears to have been a dry passage outside from the cave to the lake, though, indeed, the magnitude of the stones, and the same kind not being found in other parts of the mountain, render it very improbable that they should be carried

ried up this long and steep way for any secondary or immaterial purpose. There is no doubt, but this cavern and others, which are in the same district, were once the abode of robbers, who plundered the surrounding country, and long evaded the military by their retreats and concealments in those formidable places; nor was it until barracks were erected in the heart of the country, and regular troops constantly stationed, that they could be driven from the caverns; many of them paid the forfeit of their lives for their offences, and their caves will long be remembered as the retreat of the celebrated O'Hanlon,* who was long the scourge and terror both of farmers and travellers, who were met in those solitary wilds.

Whatever were the original purposes, for which our pagan ancestors had piled these great heaps of stones, called cairns, they can only be conjectured, as we have no authentic tradition of their design. It seems generally allowed, that they are the most ancient relics in existence, and were long prior to those formed of earth, or earth and stones, which were constructed as man became less savage; and that, long subsequent to both, buildings of lime and
stone

* This robber was said to have been a lineal descendant of the O'Hanlons, who were originally the lords of this county, which he used to alledge as a right to his rapacious demands.

stone were erected, which strongly mark the progress of civilization. That these cairns were intended as places of worship, which has been supposed, wants confirmation; it is, however, more certain they were appropriated as sepulchres, but there is no determination that this was their original purpose; perhaps they might have been appropriated to both, so naturally does a religious awe alike accompany the place of worship and the tomb: the devotion of the people to their departed bards or druids, as well as to their kings and heroes, was as sacred, and held as indispensibly necessary a point of duty, as their addresses to their god, nor was the altar of Baal esteemed more sacred than the sepulchre.

These cairns are always composed of the natural stone of the district where they stand; their original formation, we are told, was conical, and that the apex was covered with a flat stone.

Some writers have been of opinion, that they were places of justice or tribunals; others have asserted, that they were the places of election, whereon the chief stood who was to be chosen their leader; and again it is stated, they were monuments of sacred covenants; perhaps, whatever was desirable to have been commemorated, was distinguished by a heap of stones, or a mound of earth, which was the most durable mode in that early age.

In

In many of those cairns, human bones, and clay or stone urns have been found, after removing the stones, an incontestable proof of their uses as sepulchres; this description of cairns are most commonly the artificial green mounds, which are but a heap of stones sodded over; but there are also many instances of these mounds having been opened and searched to the bottom, where nothing appeared to warrant an opinion of their purposes as sepulchres. The cairn on the summit of Slieve-Guillien seems as if it was never sodded, and a similar one of stones, heaped in a conical pile, crowns the lesser pinnacle, which lies below the principal one.

Some writers have confounded cairns and crom-lechs* under the same denomination, but these only require to be seen to convince us they were for distinct purposes; it is certain they served as altars, as well as sepulchres; a narrow channel was made in the slab for the blood of the victim to flow when they offered sacrifice, and from which the druids or priests took their auguries. Druidical temples are those low oblong mounds of earth, which narrow to either end, and seem to swell to the centre, inclosed with huge stones set on an end, and within

* Druidical temples and great sepulchral stones are termed crom-lechs.

in this is frequently seen the cromlech or altar for sacrifice ; some account, accompanied with a drawing, of a very remarkable one near Newry will be given in the thirteenth chapter, fifth section.

From the many invincible obstacles to its being ever reclaimed, Slieve-Guillien is only to be admired for its natural beauty ; it covers a great and extensive area, and is the estate of several proprietors, though not a shilling of rent is paid for any part of it, being enjoyed in common by the peasants, who live in the vicinity. Perhaps, a bolder prospect is not presented in our island than from its summit, comprising a great extent of country ; the lakes and streams, the several towns and well-cultivated demesnes, together with the bay of Dundalk, where the declivity is terminated ; these, with a thousand other natural beauties which are presented to view, will repay the fatigue of the ascent, and an awful and impressive pleasure is afforded in contemplating the bold promontories and rugged cliffs bared by the tempests, and arresting the floating meteors, affording ample resources for the contemplative philosopher. Very fully as this celebrated mountain possesses those pleasing and awful views, yet these natural beauties are confined to this district, or just adjoining in the vicinity of the Doobrin mountains and Forkhill, where some majestic rocky prominencies, and other bold
and

and interesting scenery, correspond so fully with the sublimity of those we have described: though this county is, for a considerable part, inclosed nearly with a belt of mountains, yet they have too great a sameness and want of variety to engage admiration, but they possess a soil, which is capable of being rendered highly fertile.

The Fews mountains are an extensive range of this description, running from south-east to north-west, where numerous herds of young cattle are reared, the soil being much inclined to grass, which is less coarse than is usually met on mountain ground: though this is highly stocked, yet they have always a full pasture, and the cattle are never foddered but perhaps for a few days in a lasting snow, and in open winters not at all. This is the only part of the county where grass farms are large and extensive; very little care and labour will prepare the soil for successful tillage, as is evinced by the large haggards, which are filled with a small portion of this reclaimed land: a slender capital in the hands of an industrious farmer has produced extraordinary improvements; an attention to draining only is required as the preliminary step, and the manure of lime insures a high fertilization.

The great population in the most improved parts of Armagh, and the limited size of farms, accounts for the small proportion of pasturage; in these mountains, where the inhabitants are fewer, and
less

less engaged in manufacture, the tillage farms also are considerably larger ; their produce is principally oats and potatoes, which there is a steady demand for in Newry market : the farmers of this district also cultivate more flax than they manufacture, and the redundancy is sold in the neighbouring towns.

These mountains, though more remote from the sea coast than Slieve-Guillien, yet never retain the snow for so long a period, nor are they so retentive of water ; for the rain runs in natural channels along the surface till it finds the valley, and is there discharged into a stream : heath is much less found on these hills, but whins, fern, and those plants, which flourish in a warm soil, are in abundance. It is very probable, that valuable minerals are within these mountains, of which there are several indications ; in the inferior minerals it particularly abounds, for in the banks of the streams, which flow from hence, we see rich ores, potter's clay, soapy earth, and manganese, the latter so good, as to be reputed by the potters to be in no wise inferior to the best which is imported : a substance resembling chalk is frequently found, but it does not possess any calcareous quality. Iron-stone is also met, and is of that sort, which generally constitutes the roof of coal mines ; in the streams are reddish flints, and iron-stone of the same colour.

As to valuable fossils I do not learn there has been any trial made, but there are good appearances of slate quarries in several places; and, here, heath is more prolific than elsewhere in the Few's mountains; whenever lime is applied it effectually destroys this plant.

In some of these hills we find a moory soil covering a slaty subsoil; this has no appearance of solid quarry, but is a compound of loose, brownish, and decayed particles.

The south side of these hills has often a porous argillite soil, and reddish; this, when covered over with a small quantity of lime, is peculiarly fertile, and yields excellent crops of oats. The valleys have a very rich soil of various depths, and are always grassy: the overflowing of the streams gives the best manure, nor is any other ever applied; black vegetable mould is the superficial stratum, but is shallow; this is not a little extraordinary, for, on examining the higher grounds, from whence the superficial water flows over the valleys, there is no appearance of this soil, though we should imagine it was carried down with the floods and subsided on these level places.

In several spots, red clover spontaneously grows, though the farmers deny, that any grasses either natural or artificial have ever been sowed.

Such

Such is the general description of these mountains; perhaps, there is not any uncultivated range in this island, where capital could be more successfully employed, or a more rapid return insured.

Woods.

Though Armagh possesses a sufficiency of wood for ornament, yet it is by no means a well wooded country. The full-grown timber, which yet remains, is principally confined to demesnes.

The population is so great, the linen manufacture so universally engaged in, and land in such request, that every spot in all but the mountainous districts is employed in tillage and pasture for milch cows, so great a supply of food is necessarily raised for the inhabitants. This may in a great measure account for this defect, if it merits that appellation; but a fine soil, as in the interior, under judicious culture, and supporting a numerous and industrious people, is surely more profitably occupied, both for the nation at large and the proprietor of the land, than in the growing of timber. It was doubtless a mistaken policy to reserve none of the woods, and to oblige tenants to clear all away, as appears in the old leases, many of which
yet

yet exist : some mountainous land, which yields but a trifling rent or none at all, might else be in the most vigorous oak forest, and by judicious cutting and copping would be a lasting and valuable property to the proprietor ; but, unfortunately, this mistaken zeal for improvement was carried here to an excess, and the tenant fulfilled his contract, if he levelled the timber, which he had no demand for ; no great works, which required furnaces, were ever attempted here, so that this great fall of timber lay useless ; much went to decay, and much of it is yet found very near the surface. I have seen a letter from a farmer to his landlord, written nearly 150* years ago, in which he says, he should have had a hard bargain of his farm, if it had not been that a memorable storm, which happened at that time, had levelled an extensive forest and saved him the expence of cutting it. This farm was
in

* In times still more remote, we see the legislature paid a due attention to the preservation of woods ; for in the thirty-fifth of Henry the eighth, which is above 260 years past, a law was made, that any person, who should destroy any quantity of wood exceeding two acres, should be fined 40s. per acre, for every acre so destroyed ; by destroying was meant, not copping, or converting the ground to the purposes of agriculture ; and in subsequent reigns, we find several laws for the preservation of woods ; but the laws of England, which relate to improvement, have been too slowly adopted by our legislature, which leaves us so far behind in this particular.

in perpetuity, and is now a considerable property to his descendants.

The fossil-woods which are found are, oak, fir, yew, and holly; the first is always in best preservation, and altered only in colour, which is a deep black: firs are more partially met, and though constantly soaking in water or in very moist soils, are extremely bituminous and inflammable; holly and yew roots are found pretty deep in the marshes, and coast of Lough-Neagh, which are generally more or less petrified from that extraordinary property, which both the soil in the vicinity of this celebrated lake as well as its waters are known to possess.

If proprietors of waste or uncultivated lands were sensible of the value of plantation, we should not see so many naked soils; many of these could not possibly be so profitably occupied, and land, which does not now yield five shillings per acre, would be soon made to produce, by judicious clearing, perhaps four or five times that amount, after deducting the interest of the capital so employed: but this return, though certain, is slow, and requires capital, which can be the only reasons assigned for its not being generally adopted in such soils as I allude to. If useless commons and extensive tracts of waste were planted, we should less depend on foreign countries for our supply of timber, and a
great

great and encreasing revenue would be added to our finances.

Oak woods are the most profitable, for although the timber does not arrive to full perfection in less than a century, yet from the great value of its bark in tanning, it comes much sooner into profit than any other tree. It has been asserted on good authority, that an oak wood cut and copsed every forty years will give the most profitable return.

A thriving wood of this description and age, of 100 acres, will be worth to the proprietor from 9,000*l.* to 10,000*l.* exclusive of the profit to the purchaser: let the value of this sum at simple interest be computed, and at no other periods of cutting will it be found to give so great a return: if this is again copsed and judiciously thinned and cleared, it will be worth from 20*s.* to 30*s.* per acre, after all expences, much above the average rental of any considerable landed property in Ireland.

Nor in the business of tanning is the oak bark only used; it is found to be an excellent dye-stuff, producing a fine brown colour, and, when mixed with copperas, gives a lasting and beautiful black.

The superior strength and durability of the oak, in architecture and ship building, is so well known, as not to require any remark; but, perhaps, there is no timber more liable to warp; a very extraor-

·dinary instance of this may be seen in Leap Castle*, near Birr in the King's county.

Some

* Leap Castle was the seat of the late Jonathan Darby, Esq. who ornamented this edifice, which is the family mansion, and built two very elegant wings in the same style of architecture with the castle. In order to preserve the antique appearance, the sashes of the windows, and the floors of the best apartments, were cut out of great oak beams, which had been supporting the principal story in the old castle, and had remained there since it was built, which must have been for some centuries, as Mr. Darby possessed some documents, which showed that the castle was repaired in Queen Elizabeth's reign, above 230 or 240 years ago; yet, before the sashes and flooring were twelve months in use, the timber in the latter shrunk half an inch in four inch plank, though laid down and doubled with the greatest care, and it warped in the sashes, though counterlined with iron plates, and extremely well screwed together, insomuch as to force the iron, and bend it in the position of the warp, and to break the glasses to pieces.

In strength of materials, perhaps there is no greater proof of the superiority of this article. Should the elucidation of this extraordinary circumstance engage the attention of any ingenious person, it may assist the solution to acquaint him, that these beams had not previously been barked, as one side of the square had yet retained it, and was as hard and sound as the heart of the tree: the principal floor of the old castle, which these beams originally supported, had no windows, but spike-holes, which had long since been stopped up, and thus became a complete dungeon: the walls of this building were also extremely gross; one of them, about the centre of the castle, which was
pierced

Some oak trees in great perfection, of uncommon size and highly ornamental, are to be seen in the demesne grounds in this county. This tree, with its varieties and uses, will be found in botanical tracts under the head of *Quercus*; in deep clay soils it grows to the greatest dimensions.

The ash, (*fraxinus*) has the grossest dimensions, when in a deep rich soil; the common species of this tree is the most useful; it becomes most valuable, when in clumps or plantations, and much quicker comes to perfection than in the open fields, because of the underwood, which brings a considerable income, and is fittest for cutting every seven years. This wood is the best of all for implements of husbandry, as being tough, hard, and very elastic. The bark of ash will tan delicate skins, but it is scarcely ever used in this process. This timber also grows to a great size, and is irregular in its surface, particularly so, when planted in hedge-rows and exposed to the weather: the ridges, which run longitudinally in the trunk, form a channel for the rain to descend; where this is remarked by any change in the co-

E 2

lour

pierced for a large gothic window, which Mr. Darby introduced, was fourteen feet thick; the apartment they were taken from was always remarked as being the warmest, and freest from damp in the whole building.

lour of the bark, that part of the tree is certainly rotted by the water, and it frequently pierces to the heart. Some ash trees will have their entire surface from root to branch with this columnar appearance, and will be perfectly sound; by a particular attention to the colour of the bark, or a small fissure in the furrow, the decayed will be easily distinguished from the sound timber.* Ash, which has grown in woods and best sheltered, is freeest from this defect. In thinning ash woods or plantations, great care should be taken not to leave the remaining trees too bare, or they will certainly rampike.

It often occurs, even in small clumps, that in clearing away some misshapen trees, to shew a beautiful spreading ash to advantage, it has quickly after rampiked.

The largest tree of this species in Ireland stands at Lea village, in the Queen's county, on the road side between Portarlinton and Monasterevan, and is said to equal the girth of six horses' bodies.

The

* I lately saw a particular and invariable proof of this in many ash trees, cut in the county of Cavan, and in no one instance was the woodman, who pointed it out, mistaken.

The mountain ash (*sorbus*) is a beautiful tree in ornamental plantation, but its timber is not so much esteemed, as being considerably lighter.*

The beech (*fagus*). No tree is more easily raised, nor is any more beautiful in forest scenery ; yet it is surprising, that Gilpin denies its claim to a forest tree, and ranks it very inferior. It more justly may be said to vie with the oak in stateliness, and the spreading of its branches ; and the beautiful variety of hue in its leaves, through the autumn, is unrivalled by the foliage of any tree.

The beech delights in a high soil, and if calcareous the better ; it is also valuable as an under-wood, and can be transplanted after many years growth.

As much injury is frequently done to the seed of this tree, when sown in the mast, it is more advisable to seek for beech quicks in the woods, and remove them to the nursery. If raised in the seed-bed, they should remain two years prior to their removal to the nursery.

The

* It is a general principle, that the heavier the timber, so much the stronger is it, for which reason the most experienced authorities now recommend barking the tree completely, particularly the oak, at least three years before it is cut down, which adds extremely to its weight and solidity.

The beech leaf is said to make the best palliſſes for beds, and is preferable to straw. The timber is soft and used mostly in furniture ; its uses in bleach-mills are too well known to be particularly recited.

From the beech-nut oil is extracted, and this is used as butter in some countries in Asia. From this nut, it is also said, that a very good bread is made, first being carefully kiln-dried.

The chesnut tree (*castanea*) ranks under this genus, and is only a species of beech, the second in its order.

The dwarf chesnut (*pumila*) is the third and last of this species.

The nuts of the chesnut-tree are also greedily sought for by swine and vermin, which is a good objection to their being laid in drills in the seed-bed ; here they should remain two years, and four years at least in the nursery ; and if after the first year they are cut down, they shoot more vigorously, and thrive considerably better.

This tree delights in a dry and high soil ; its timber has so little toughness, that it is very unfit to support weights, but it has the property of never shrinking, and from the nut it is well known that bread can be made.

The sycamore or maple tree (*acer*) is denied to be indigenous to the British isles, and is said to be a native of Germany ; however it agrees with our soil .

soil extremely well, and is frequently found in great vigour in demesne lands in this county.

This exceeds all other timber for its uses in the beam of the beetling engine in the bleach-mill, as it never splinters, and need not be covered with horse-skin, which even beech requires for this purpose. In so great a manufacturing country, it must be ever in high estimation, and a beam ten feet and a half long, and eighteen inches in diameter, is of treble the value of any timber of the same dimensions.

This tree, when tapped, yields a saccharine juice, from whence a wholesome wine is made. Its wood is superior to any other for turning, and is valuable for inlaying; as an underwood for fuel it is more desirable, by its very rapid growth.

The leaves of this tree become ragged and full of holes, by means of an insect, which greedily destroys its beauty in ornamental grounds.

If this tree be well weeded in the seed-bed, whose soil is common mould, it will shoot twenty inches in twelve months, if sowed in autumn; it should remain in the seminary but eighteen months, and ought then to be removed to the nursery; it can be also propagated by layers, graftings, and cuttings, and is generally esteemed as one of our hardiest trees.

The layers may be laid at any time of the year, and will strike root in three months. Cuttings should

should be of the last shoot, and the thick part put in the ground; they require great attention to watering, and should be made before the autumn is far advanced.

The lime tree (*tilia*) is not generally esteemed as good timber for uses out of doors; but I have seen gates and gateposts of it, of many years standing, and in great preservation. I could not learn of what dimensions the timber was when cut, or the season in which it was felled. It is a soft wood, useful in inlaying, turning, and carving; of the outer bark ropes are made, which are said not to decay by damp, and the inner rind is so pliable and tough, that neat and very durable mats are made of it.

The fir tree (*pinus*) has no less a variety than twelve different species, most of which are found in vigour in this country. The Scotch fir is planted most commonly; not only for beauty, as an evergreen, and rapidity of growth, but it is also valuable as a nurse by its shelter to young deciduous trees; its timber is esteemed excellent in outside work when painted, but it decays quickly in a damp situation as in roofing*. This tree, when standing in hedge-rows or in fields, loses all that beautiful effect it possesses in plantations. The contrast of its shade, as it waves with the breeze, is very pleasing in the forest,

* I not long since saw a capital and extensive concern roofed with this timber, and the rafters of uncommon dimensions, yet in fifteen years they were completely rotted, though the slating was always in the best repair.

rest, where the ground is of an undulatory surface, or covering the face of a hill, and nothing seen but the green branches ; in this point of view, when full grown, it is only to be admired as ornamental timber.

The larch, whose value has been until lately little known, and is now so universally a favourite, both as a profitable and ornamental tree, is indigenous in America and Asia, though it has thriven here with great success. In masts of ships it is preferable to other timber ; nor is it less valuable in building ships of war, as it does not splinter, and has the peculiar virtue of resisting the worm. It is also preferred in house-building, in beams, lintels, &c. : it thrives in a dry soil, and which has been condemned so sterile, as not to be worth the culture, so that there is no tree more hardy, or better calculated to protect more tender plants : the tops of the larch very early get an inclination from that point, where storms mostly prevail, but this does not hurt their growth, which will sometimes arrive at fifty or sixty feet. It produces cones, which hold the seed, and there is but little trouble in their culture. Its uses are numerous and increasing in proportion with its demand, so that we may expect to have other discoveries of its value, in addition to those we already are in possession of.

The silver fir and the balm of gilead, are only ornamental in a low plantation ; they become very
ragged

ragged, as they get up, and do not thrive after a certain growth. Of these two species the silver fir is considerably the most hardy, and thrives in a rich earth; the balm of gilead will only thrive in a good mould, or a deep sandy soil.

The Weymouth pine (*strobus*) is very beautiful; though planters agree that it thrives in most soils, even in slaty, stony, and stiff clays, yet it does not seem to flourish in this county; this pine may be transplanted at a very great height with safety, if it has been carefully attended to in the nursery.

The seed of all pines is found in cones, and by keeping those close and free from damp, they will be sound for several years. The seed is sown in March.

From the fir-tree, and the varieties of its genus, is extracted that viscous substance turpentine, which is valuable for its resinous and unctuous uses, and can be extracted by tapping the tree, as well as by its own spontaneous discharge.

The elm tree (*ulmus*) has a variety of species, one of which only, the common elm, is indigenous; the timber is always best in a stiff adhesive soil, though not of the most rapid growth; when it springs quickly it is very light, and not esteemed; it is cultivated from suckers, and also from layers.

The heart of this wood is very heavy and close, and extremely hard, for which reason it is peculiarly

liarly useful in conveying water from reservoirs, and of this timber are all the pipes made, through which the water is conveyed from the bason to the several streets of the city of Dublin: for the same reason, it is preferred for the naves of carriage wheels, no timber being equal to it for this purpose.

The elm is also very beautiful in plantation, and is a tree peculiarly deserving our attention, both as ornamental and useful.

Of the walnut-tree (*juglans*) there are five species, the common kind being the best both for fruit and variety of veins and shade in the timber: it thrives in greatest vigour in rich garden moulds, though there is no soil, in which it will not grow: its culture is from the nut, which should be sown early in spring, having been kept dry in the husk; it is not to be removed to the nursery for two years; when the nuts are gathered for sowing, they should be spread out on a dry loft, but not heaped, because then they heat and sweat throwing off the husk, which should not by any means be removed. The fruit of this tree also makes a good pickle, and from it a valuable oil is extracted.

The timber is capable of taking a good polish, if cut in winter, and improves by age; in plank only it is desirable, as in small scantling it is brittle and weak; for this reason it is better adapted for tables
than

than chairs ; it is much esteemed in farm-house furniture, and particularly so in the stocks of guns and pistols ; the most knotty is the most valuable to inlayers.

Few trees are more irregularly beautiful in its branching than the walnut, or afford a closer shelter : its leaves are esteemed useful in dyeing.

The cherry-tree (*prunus*) has a great variety in its species, and is particularly esteemed for its fruit, though formerly it was cultivated very much for its timber, of which the best furniture was composed, improving in beauty with age, and by constant unctuous application, as cream, oil, &c. Many old pieces of this furniture are fully equal to mohogany, though they are very rarely met with, since the importation of the latter wood ; it is now greatly neglected, and few people have the knowledge of polishing or preserving it. Whether we admire this tree for its wholesome fruit, or its variegated timber, for its delightful blossom in the spring, or luxuriance and variety of colour in full bearing, we must allow it claims our best attention. It delights in rich garden soils, which have been well manured, and distils a clear gum. Its usual culture is from the stone of its fruit ; but to produce the best fruit it must be grafted, and it is recommended that the old stock shall be the wild cherry-tree.

The

The sallow, or willow-tree, (*salix*) has a variety of species, but confined with us principally to three kinds, the sallow, the willow, and the osier. The first has a very different texture from the other two, its branches being brittle, and never arriving to that standard, which merits the title of a forest-tree; it will however yield poles and fire-wood; its timber is light and is used by inlayers, but it is only good when it grows in a dry soil.

The willow is particularly useful for baskets, and is also highly ornamental near a sheet of water, particularly the weeping-willow, which also in plantations is so beautiful and pleasing under the shade of a lofty tree. The stately Virginia, or black birch, would here form a fine contrast. The willow delights in a moist soil, as does the osier, which is so valuable for hoops and basket-makers' use. A good osiery, which is carefully attended, and the soil perhaps not capable of any other culture, as in low moist bottoms, marshes, and small tracts of island, subject to floods, will return every three years to the value of 60*l.* per acre. I have seen an osiery in the vicinity of a good trading town, which was fully equal to this, or 20*l.* per acre per annum.

The *salix* is therefore considered of the *aqueous* tribe, but every species of it will grow on upland,

as

as well as in moist or watery soils: when allowed to run in standards, it has a most rapid growth; when set in cuttings, it soon forms a thick fence, and is exceedingly ornamental if plaited in net meshes, as it gets up, enclosing screens or plantations; its branches being so tough are very fit for this purpose, and it becomes, in a year or two, an impenetrable fence: if the shoots are nipped, it throws all the growth in the swell of the stake. In this neat fence, the red and golden osier form a beautiful contrast, and should be planted alternately.

The poplar-tree (*populus*) is of little estimation for its timber; the black poplar is the most useful, and sometimes used in inside work; it is also fit for the manufacture of lasts and patters.

The poplar forms the most beautiful scenery of all other aqueous trees, and is extremely rapid in its growth.

The aspen-tree (*tremula* from the tremulous motion of its leaves) is of the poplar kind, and is very hardy, growing in almost every soil.

The poplar and its varieties may be propagated from cuttings, and also from layers and suckers; the latter mode is now preferred, and it is transplanted early in autumn, when the leaves decay.

The

The bark has the property of tanning leather, but is by no means so astringent as the oak, or even the birch bark; it is also esteemed by dyers, and imparts both a fine yellow and a variety of light drabs: the former is from the Italian, the latter from the black, white, and virginian poplars.

The birch-tree (*betula*) has a variety of species, from a very humble to a majestic growth; it will thrive in a poor, shallow, or chilly mountainous soil, or in a rich calcareous gravel; turners, hoop-makers, cart and heel-makers use its timber, and its branches are slender and make the most durable brooms; but it is particularly valuable for its bark, whose astringent principle ranks next to that of the oak, and is esteemed in northern climates as incorruptible: the inner rind of the birch is of an inflammable nature, which, when twisted together, makes good torches. This tree is very juicy, and, when tapped, will distil a saccharine substance, which is said to correct a scorbutic habit; of the timber can be made most excellent charcoal.

The birch is highly beautiful in plantations by the contrast of its silver bark, and almost purple branches, and it forms a good screen to protect less hardy plants. It is propagated from layers, or from seed; if from the latter, it must be carefully weeded

weeded, and watered in dry seasons; and a due attention paid to earthing up, after being put in the nursery, which should not be till two years old.

The alder-tree (*alnus*) is also of the species of *betula*; it thrives best in low and marshy soils, is an aqueous tree, and is said to injure any soil it grows in, by making it rotten, wet, and rendering the pasture poisonous; its bark is particularly useful for dyeing a high red colour, which with copperas makes a lasting black; the bark is also medicinal, highly astringent, and is used successfully in fevers and agues; it is also a strong purgative, when given to cattle. The timber is sometimes used for pipes, to convey water under ground, as it long resists decay; a range of these trees, at proper distances and allowed to furnish a full head, is highly ornamental.

The general properties of the *betula* are bituminous, warm, and astringent in its bark. A fungus proceeding from this tree, when burnt and powdered, is a good styptic. Its leaves are medicinal in the dropsy, and wine is made by fermenting the saccharine juice, which it yields, when tapped.

Of the holly - tree (*ilex*) the most common species, the *aquifolium*, thrives best in this country,

is

is frequently seen in shrubberies and sometimes grows naturally to a great size. It has a variety of species, and forms a beautiful effect in the winter season, interrupted with other evergreens, and bears a red berry. The wood is white, is used in fineering, and is close and hard as to be with difficulty discerned from ebony, when stained black and finely polished. This tree is excellent in fences, and ought to be transplanted in the spring, delighting in a cold and moist soil, but the plants must be young or they will not thrive.

This plant is raised from the berry, should not be removed to the nursery till after two years, and requires much attentive weeding and watering; it should not be suffered to remain longer than two years in the nursery until transplanted.

It frequently misses on transplanting, for which reason two or more plants should be put down where it is intended one should thrive.

It is remarked that the holly-berry never shoots, till after a full year in the ground, nor is it put in the seed-bed till the shoot appears; a heap of these berries should be buried like the haw of the white thorn in autumn; after twelve months, they should be put in the seed-bed and raised like quicks.

They require moulding and much care, and must have a well sheltered and warm aspect. From the

holly-bark possessing so much of a glutinous property, the best bird-lime is also made.

The hazel (*corylus*) is an excellent plant for thickening coppices, and is propagated both from the nut, cuttings, and layers; it will thrive in any soil or situation, and is valuable for hoops, hurdles, and handles of farming utensils, but particularly so for the nuts, which are esteemed agreeable to the palate, and very mild, though possessing an oil, which is in great reputation with painters, and next in value to almond oil. As a shrub, the hazel cannot be called beautiful on close examination, but has a good effect at a distance, thickening a copse so rapidly as to give a very woody appearance.

There are two species of the hazel; they are both equally hardy and of rapid growth.

The liburnum, or trefoil-tree (*cytissus*), though only cultivated by us for ornament, is yet a fine timber-tree, and will grow to a large size in exposed situations, and in any common soil; the wood is extremely hard, and useful to inlayers, and is very valuable in furniture, taking a high polish; it is propagated from the seed, and requires weeding between the plants. The beautiful bright yellow flowers, which hang in clusters, form a pleasing variety in the spring, and the regular unison of the oval leaves, growing in
threes,

threes, is peculiarly neat, and from thence it is called the trefoil-tree.

This must ever be a favourite in shrubberies, and demesne grounds, for the elegant formation of its leaves and flowers, and their pleasing and enlivening contrast.

The foregoing are the principal trees, which are found in this county, and several varieties of these species are also partially distributed in shrubberies and plantations.

To encourage their culture in the mountainous parts is the principal desideratum, and this can be done at a very moderate expence, ensuring a certain profit.

In the brief sketch I have given of the soil and situation, in which each different species will flourish, I have consulted the best planters, and the agreement of authentic authorities on this head is the best proof of their correctness.

If the rearing of trees, and their management and culture is so well deserving a close application, it is certainly no less a matter of moment to acquire a knowledge of the proper seasons and ages when those trees are ripe for the axe, as all the former care bestowed on them is conducive to this purpose, ornament being only a secondary consideration. Without a due attention to this particular the best timber may be materially injured;

for, its excellence is dependant on the time of felling, as much as on the choice of aspect, and the soil in which it was reared.

As the timber, which retains the sap the longest, is most liable to decay, it is therefore reasonable to conclude, that it should be felled when it possesses least sap, or in the close of the autumn; but as oak bark will strip only in the summer, this tree is felled at that time, which is a material injury to the timber, both as to quantity and quality; the exterior coat of the oak, after the bark is stripped, is called the sap, and is that part, through which vegetation is conveyed to the branches; this sap or juice, being in full vigour in spring, will of course penetrate deeper in the tree than at any other period, when vegetation is exhausted or dormant, until the returning season; and as this coat of sap is always cut away before the tree is sawed up, of course there is much loss of timber; for, that substance, which was sap in spring, becomes actual timber in winter; so far it appears, there is a loss in quantity, and, as to quality of timber, it is well known, that the oak is considerably more durable, close, hard, and its specific gravity materially increased when cut in winter, as all handicrafts assert who work it up, than at any other season of the year. It becomes a desirable matter to enquire and find, how the bark can be saved, and the
timber

timber also preserved in the best state, and it can be very easily accomplished by barking the tree, as it stands, from the root up to the gross branches in the summer, sawing off the head, and saving the small or boxing bark in the usual way, and by letting the naked trunk remain two or three seasons longer, where it will dry more rapidly than if felled; by taking off the bark, vegetation is stopped, and no more sap springs; the timber thus acquires considerable weight, for, it is a well known maxim, that the strength of materials must depend on their weight, or, in other words, that the heaviest timber will be able to support the greatest weight.

If this process is most judicious in managing the oak before it is felled, how much more readily will it apply to other timber, when the bark is not required to be stripped? In other cases, when the bark need not be saved, it need only be cut through around the tree, and it may or may not be headed, as convenience may require; for, the perfect separation of the bark prevents vegetation, and cuts off the sap, which is only necessary, and all timber is thus greatly increased in weight and quality.

I have seen this method accidentally tried on fir-deal, in which there is so great a quantity of sap, and the same effects followed; a tree had been begun to be cut by a tenant, whose landlord stopped
the

the felling before it was nicked around above an inch deep in the timber, and it remained in that state above two years; when it was felled, it had no sap, and even the bark was nearly as hard as any other part.

Another matter worthy of notice in the felling of timber is the knowledge of the age of trees, or at what age they arrive at vigour. An oak is said not to come to perfection until it is 100 years old, and that it will hold its vigour for probably some centuries more, before it begins to decay; but, in the comparatively short period of human life, this must ever be undetermined, and is not a matter of moment to enquire; but it is agreed, that oak ought not to be cut for gross uses under fifty or sixty years standing.

An ash has nothing like so long a period; it would be a rare matter, and must only happen from some fortuitous circumstance, which has not a tendency to decay, or perhaps it is already rotted to the heart. The proper period of the maturity of other timber is within our knowledge.

Connecting the observations respecting the proper age of timber, when ripe for the axe, and the due season for cutting it, I shall state the following experiment, which will be found to apply more or less to every species of tree.

Let

Let a cross cut be made in a deal tree, in the spring season, which will measure in diameter twelve inches, we will find that the coat of bark, or sap, equals the third part of the diameter, or four inches. Let the process of nicking the bark be performed at the same time on another tree, of equal dimensions, of the same age, and in the same plantation, which shall be suffered to remain standing the required time, and we shall find that one third nearly of the quantity of timber is added; the sap becoming in two or three seasons equal to the heart; thus eight inches of solid timber are encreased to twelve; and another most material observation is, that by this means a tree can be felled, of a third space less growth, to the same advantage, as a tree of so much longer standing; or that a tree, thirty years old, can be cut after this process, to the same profit as a tree forty-five years old, after the usual manner.

Timber will sooner or later arrive at perfection, according to the quality of the soil, and the temperature of the climate; as most forest trees are indigenous, or will be naturalized to our climate, it only rests for us to make choice of a proper soil and situation for their culture.

Bog

Bog and Moor.

Much has been written, and various have been the opinions on the original formation of bog. Although, by attaining the knowledge of this subject, it might be more easy to apply a remedy for the reclaiming of this soil, it is enough for us in this limited tract to consider, from actual experiments, and the evidence deduced from thence, what are the best modes of applying these tracts to profit, which have for many ages remained in a state of waste and utter neglect. It is first necessary to enquire into the actual quantity of bog, and the uses, to which it is applied.

The quantity of bog in Armagh county might be said to be equal to the demand for fuel for culinary purposes, if it was more impartially divided, but the case is otherwise; rating the average cost of this fuel through the county, it is not less than one shilling and six pence per statute kish, or from two shillings and six pence to three shillings and sixpence per horse-load, including the expence of drawing; in some seasons it is considerably dearer: the bleach-mills consume an immense quantity, but in the vicinity where coals can be had they prefer this latter fuel, and will draw it home on
better

better terms at six miles distance, than they could lay in a supply of turf, even though the bog was at the door; this proves the extreme dearness of turf fuel.

Considering the comparatively small area of Armagh with the great population, and the numerous and extensive bleach-greens where so much fuel is required, we cannot conceive there is a sufficiency of bog for the demand; the want is already severely felt in many places; the eastern district has the advantage of the navigation from Newry, by which sea-coal is conveyed; and if the Tyrone collieries were worked with spirit, an abundance of fuel would be supplied from thence by the same conveyance.

A very large tract of bog in the northern part of the county, on the estate of William Brownlow, Esq. is in such demand, as to yield the occupying tenant above 1000*l.* after paying the rent of above 700*l.*; the price of turf fuel is even in this neighbourhood more than double the average cost of Leinster or Munster.

However unequal may be the distribution of bog, it necessarily will be desirable to occupy that part in the uses of agriculture, which has been already cut out. Draining is the first process, by which means the water is carried off, and the body of bog or soil naturally condensed; this solidity

dity may be rapidly increased by quick-lime spread on the surface; limestone gravel, when it can be conveniently procured, is much more lasting, and should be ploughed into the surface. It was universally agreed, before the auger came into use, that the main drain should be cut down to the gravel, if possible, to intercept the springs, intersecting the portion of bog which is intended to be reclaimed, and, according to the natural falls, that leading drains should be made into this principal one, but these also at a considerable width, and they should be always kept clear.

If the surface is ploughed in frosty weather, after a season's draining, and calcareous manures mixed with the soil, it will soon destroy the non-putrescent quality, and change it to a good vegetable mould.

Paring the superficial sod, and burning it in heaps, produces a calcareous substance, that favours vegetation; but, though this will have the desired effect of ensuring a good crop, yet it is not a lasting manure, and tends but little towards solidity.

When bogs will bear the weight of cattle, which a short time will effect in draining, it quickly assists their density.

Some bogs are so deep as to render the cutting to the gravel utterly impracticable, and may be drained
at

at a very trifling expence by Elkington's boring apparatus, on exactly the same principle as a pump-borer's auger.

It v̄ery generally happens after piercing through several strata in bogs, we find at various depths a kind of blueish clay, through which water will not pass, it is so very tenacious; this is called in Irish *lac-leagh*, and it is necessary it should be pierced, either for the purpose of carrying off the superficial water, or for the discharge of the springs, which are underneath the stratum; this I have performed with great success by the auger.

When we meet what we term a shaking bog, or, as it is here provincially termed a *qua*, the *lac-leagh* is near the surface, and with the bog floats on the body of water underneath, which is the cause of its undulation; thus, in a shallow soil, all the intermediate layers or strata serve as a sponge to imbibe the superficial water, and retain it, nor can the under-water pass off till this *lac-leagh* is cut through.

I would commence with this mode in reclaiming bog, and leave it in that state for some time, as the surest method of gaining solidity, by conveying off the under-water first; where the natural figure of the surface favours it, the expence will not be a fourth of cutting a drain to the gravel, and will produce the same effect; it may be necessary

cessary to add, that a shallow drain should be cut from the auger hole, where the water springs, to the natural fall; it would be more proper to make the narrow drain first, and in the bottom of it to bore the hole, rather obliquely than perpendicular; if the intended tract to be improved is on the side of a hill, in this case the drain should be parallel to its base, or as much so as the nature of the ground will admit.

I have seen this process of boring effected at an expence of about two shillings per acre, and in a few weeks the bog was capable of bearing cattle of five or six hundred weight.

Moors, or land which has very light superficial bog stratum, are doubtless occasioned by the spreading or overflowing of water on the surface; draining in this instance is absolutely necessary, and we frequently find the substratum of such soils is gravel, which is so very proper a manure to correct their acidity, and restore them to every purpose of tillage.

If the gravel is not calcareous, the effect, which such beneficial manures impart, will be produced in a great degree, by lightly paring the surface, burning the sod, and ploughing in the ashes; a fine crop of turnips may be yielded from this management, and it prepares the land very well for grass-seeds.

When

When marle is found in the piercing of bogs, it is a most effectual manure, and its calcareous quality will be highly encreased by burning it in small kilns, which renders as quick a putrefaction as caustic lime ; this is particularly valuable, where limestone is not conveniently had, and is an excellent substitute.

Much has been objected by some agriculturists to the ploughing in the gravel, and incorporating it with the soil, as they assert, that solidity will be acquired from draining only, and that also an herbage will be produced, which will yield a wholesome pasture ; this mode may answer for two or three years, and I have known it tried with success for so long ; but, except the calcareous matter is incorporated with the soil, I have found it to return again to its natural coarse and aqueous herbage ; an instance of this was proved at Monalty demesne, near Carrickmacross, in the county of Monaghan, about three years ago, where the late Mr. Steele had ineffectually, though very attentively, followed that process ; I know many active improvers in the King's county, who are sensible of the superior effects of ploughing in the gravel.

The general turf-cutting season in this county, as in most other parts of Ireland, is too late by six weeks, or a month at least ; they seldom heartily engage in this work, till the summer is far advanced, and,
should

should the season be wet, it becomes a laborious and tedious task to save it, particularly when hand-turf is made, which is soon broken by the rain.

When the month of March is dry, it is the best season for turf-cutting, and it may be saved thoroughly, and clamped in three weeks. It is strange, that the linen merchants, who require so great a supply of fuel for their bleach-mills, should neglect this important concern; if it was better attended to, there might be a saving to the consumer of at least one third of the cost, and the children, whose business it is now to plunder and destroy hedges half the year, might be profitably employed; but their whole time is spent in picking up fuel, when they might easily earn from three pence to four pence per day, in the process of the linen manufacture.

It frequently happens in the deepest turf bogs in this county, that, after paring the surface sod, the first spit of slane turf is good; the second layer loose, crumbly, and indifferent fuel; and the third stratum, which generally goes to the depth of the *lac-leagh* or gravel, is best of all, and makes very firm and hard black turf.

Turf ashes are so general a manure as to be adapted to every soil, but require a particular care in the different seasons, when they should be laid on, and certain quantities should be proportioned

proportioned to the crop they are meant to produce.

All artificial grasses are assisted by this manure ; it should be laid on stiff strong land very early in spring, and should not exceed eight barrels per plantation acre, or 256 gallons, and about an eighth less to the statute acre ; a third less than this proportion is perhaps too much for light warm soils. I have been assured by an excellent experimental farmer, that ashes, put out in spring, is an excellent dressing on green wheat sowed in a stiff clay soil, and pushes it forward very soon, but must be very lightly laid on, not exceeding two herring guages to the acre, and that having tried it on a crop of bere in winter, it had a contrary effect, and forced the corn too soon ; the consequence was, that the produce of straw was great, with a small head, and a withered stunted grain. It had a happy effect on wheat land in winter, though it disagreed with the bere crop ; for further experiment, part of the wheat crop, which had the manure in winter, was lightly dressed again in spring, and the effect was still more succesful.

It considerably assists this manure, if rain should come soon after it has been spread on the surface, as it warms the roots of the plants, and destroys many animalcula, which are prejudicial to crops,

to

to turnips in particular, which never should be sowed but with this manure.

On light sandy soils or light limestone gravel, ashes do not answer so well, except in rainy seasons; in dry weather, they tend to burn all kinds of pasture, but if this dressing is laid on a deep soil in rainy weather, it produces a quick vegetation, and an ample recompence.

When bog is burnt for manure, it is best to use the deep turf, as the ligneous particles, which it contains, are there in greatest purity, as being less exposed to the air, and containing a considerably greater quantity of salts and sulphur.

Turf ashes, being of a very fiery substance, may be also happily applied in the destruction of sour bad kinds of grass, and aqueous herbage, which is not nutritious in low soils, after which, a light surface dressing of clay will ensure excellent grass, but small drains ought to be made to dry the surface.

I think the lands beyond the bog, in the parish of Killeevy, might be greatly improved by a judicious application of this manure, and it could be obtained at small expence; the first crop might be potatoes, which would yield a valuable return. I would prefer this crop, as it produces that degree of moisture, which is necessary to the soil, after this manure, both, as being a succulent plant imbibing
the

the dews and retaining the moisture, protecting the surface and sheltering it, with its large spreading leaves and stalks, from the heat and power of the sun.

Reclaimers in this country should commence with this crop, if they have not stock enough to consume a crop of turnips, as it is so necessary for the action of ardent and calcareous manures, that a due degree of moisture should be preserved.

The potatoe will still be found a beneficial crop the second year, as corn crops very frequently fail in a boggy soil after calcareous manures; the third year oats may be sown, but the land should be previously ploughed deeply, and laid in high ridges; from this culture a reasonable crop of twelve barrels of oats will be yielded in a very middling soil; if the reclaimed land is intended for grass, it should never be laid down with a corn crop, but the seeds should be sown after a vegetable crop, as turnips, potatoes, &c.

Bog, which has been reclaimed after this manner, will frequently yield white clover spontaneously.

The small farmer, who might gradually improve his little tract, could not cultivate a more valuable crop than cabbage plants for market; the attendance they require is well proportioned to the time he can spare from his loom.

The wealthy proprietor of extensive tracts may more largely engage in reclaiming wastes, and should always prefer the culture of green crops; they not only enrich the soil, but will also feed a numerous stock, which should be proportioned to their consumption; the profits in this respect will greatly repay the expence, and ultimately, when the tract is reclaimed, the proprietor has not only gained so much land, but is also considerably in pocket.

Improvers have naturally an anxious desire to see the wastes, which they have taken in hands, converted into grass; to effect which, a great error is committed in laying it down too early, for it requires a long culture and frequent ploughings, before the coarse sour herbage is destroyed; the drains should also be kept open for a considerable time, and dragged of weeds, or any stuff which may have fallen in; the property of bog-water being directly opposite to that of rain or river water, any weeds, grasses, or plants, which lie in these drains, are not rotted or decayed, but rather swelled and macerated, so as to form an impediment to the passage of the water, which the bog again imbibes, and sucks up like a sponge, and, wherever it prevails, destroying vegetation. Bog plants will strike root again in the bottom of these drains, which shews the necessity of their being kept constantly cleared.

The

The advice of all improvers is unanimous in this instance: some even assert, that nothing more is necessary than to keep a strict attention to clearing and scouring up these passages for the under-water; that, when it is discharged, the bog plants will die, and their putrescence will produce a wholesome natural herbage for young store cattle; and that afterwards the nicer modes of culture may be adopted, as leisure or circumstances will admit, always observing, when lime is applied, that the more caustic it is, so much the better, and the speedier its operation, and that it should be laid on bog while the soil is moist.

When potatoes are sowed in bog, which has been manured with dung, they are never of a good quality, but are watery, soft, and will not keep; with lime manure they are in every respect the reverse.

A principal matter in reclaiming bog is to procure shelter; this may be effectually had, by em-banking a long ridge between two wide drains and planting it. Firs, larch, and beech, quickly afford shelter, and form a beautiful and capital enclosure; and if the sides of this bank are quicked with white-thorn, it considerably adds to its permanency and effect.

SECT. 7. *Minerals.*

THE minerals of this county, as connected with metallurgy, are so few, which have yet been discovered, as scarcely deserving notice, that of lead only excepted, which is confined to one particular district.

Of perfect metals there is none ; some imperfect lead, and some indication of iron, semimetals, regulus of manganese, and antimony, and these only in very few and partial spots ; but of the various substrata of minerals, which have no necessary metallic properties in themselves, except fortuitously, better distinguished as *fossils*, there is a great variety, which would afford ample investigation for the natural philosopher.

Fossils, native, and extraneous.

All bodies beneath the surface are termed fossils in natural history, whether they have been originally produced, or have adventitiously been placed there ; what we have now to consider are unmetallic, for, although every mineral is certainly a
fossil,

fossil, yet no fossil can be strictly termed a mineral, but that which is found in a mine.

The most valuable fossil yet discovered in this county is limestone, of numerous kinds, and more or less calcareous, under which is ranked all the variety of marbles.

The fossil usually termed freestone, from the soft or easy working of that stone, but which in mineralogy is termed sandstone, is found in boulders and loose blocks, but I do not recollect to have seen any quarries of it in this county; here, it is pretty much superficial, and of course more hard, and less esteemed by stone-cutters. I have seen detached pieces of it in the mountains, very fit for grinding-stones, but not of sufficient magnitude for mill-stones.

There are also some other native fossils, as clay, potters'-ore, soap-stone, coloured earths, and a variety of ochres, and also some indication of slate quarry.

The extraneous fossils, which I have learned to have been found here, are confined to the vegetable kingdom, as trees, and some variety of plants; of the former, the oak and the hazle, both in roots and nuts, at great depth in bogs, and the petrified woods on the banks of Lough-Neagh; of plants, principally the fern, and, I am told, the spleenwort also,

also, and some mosses, which have been discovered in the heart of slaty stones.

I have not heard of any shells being discovered in stone, nor any fossils of the animal kingdom, which are frequently dug out of many of the bogs of Ireland.

Mineral Waters.

In the mountainous district are several springs, slightly impregnated with sulphur, and chalybeate, and there are frequent ferruginous oozings, most generally on the borders of bogs; one of these, in the midst of the Fews mountains, is said to be useful in scrophulous complaints, and operates as a purgative. I had not an analysis of it, but it was very sulphureous and cold; silver was changed in colour to that of copper, and a glass of spirits, mixed in a quart jug of this water, turned black; in the spring, the water looks as pure and clear as chrystal.

I cannot find there is a mineral water in the county, of any eminence or well proved medicinal properties, nor does Rutty take notice of such.

The waters of Lough-Neagh, which border the county, are medicinal, and have been indubitably proved to cure scrophulous complaints; on the north-

west

west side of Armagh, touching Tyrone, this virtue is said to exist principally : here is a bay, with a sandy bottom, and a gradual descent ; it is said that, by ten or fourteen days bathing in this place, and drinking the waters also, running sores will be dried and healed, and even the king's-evil effectually cured.

Boate, in his natural history of Ireland, relates a remarkable cure* of the king's-evil, in this place, in eight days.

He remarks, that the declivity of this bay is so gentle, that a man can gradually walk out for a great distance, until he is up to his chin, and that frequently the sand changed from cold to warm, and from warm to cold ; this observation yet holds good, as also that the drinking of the waters will relieve chronic complaints, and stop fluxes.

Formerly the natives considered, that this healing virtue was only imparted on the anniversary of St. John, on which day they resorted to the lake, in great crowds, and also drove in their sick and distempered cattle ; the superior efficacy of the waters, about mid-summer, must have occasioned their attributing the benefit derived to the influence of this saint, whom they yet invoke, when they

* In a letter from Francis Neville, Esq. to the Bishop of Clogher, page 120.

they have occasion to try the medicinal effect of this celebrated lake.

Its petrifying quality will be considered in the next section.

SECT. 8. *Waters.*

1. THE *Blackwater* river, forms the western bounds of Armagh, and divides it from Tyrone, to which it is equally common with this county.

This river rises in Tyrone, and is, near the fountain head, an inconsiderable stream, but many rivulets are discharged into it, before it touches Armagh county; the point of junction is at Caledon demesne, and from hence it becomes a very wide and beautiful river, highly adorning the spacious banks, through which it flows, and from thence, coursing the confines, is discharged into Lough-Neagh.

The towns of Blackwater and Charlemont are on the banks of this river, as also the villages of Benburb and Caledon are just in its vicinity.

2. The *Ban*, flows only in the north-eastern district; after passing through Down county, near Guilford, and from thence joining the Newry canal, it is discharged into Lough-Neagh. The neat trading town of Portadown is watered by the Ban, which,

which here is a spacious river; it also flows convenient to the town of Lurgan, and is navigable throughout in its passage through this county.

3. The *Newry river*, or the *Newry water*, as it is more generally distinguished, rises in the county of Down, flowing but a short distance, in a narrow valley, from its source to the bay of Carlingford, into which it is discharged; it is in itself but an inconsiderable stream; its connection with the tide-water renders it of the first consequence to the trading town of Newry, through which it courses in its passage to the sea.

4. The *Callen*, is said to have two sources, one of which is in the centre of the county, in the parish of Mullabrack; passing near Lisnadill church, it still keeps a central course, flowing below Armagh town, and quite contiguous to it; thence taking a north-easterly, and, soon after, a north-westerly direction, it is discharged into the Black-water river, close to the village of Charlemont; the other source is the fifteenth river mentioned in this section. The village of Keady is on this river.

5. The *Tall-water*, is also a central stream rising between Richill and Hamiltons' bawn, and passes through the parishes of Kilmore and Loughgal, in a direct northerly course; thence changing due west, it flows towards Charlemont, and joins the
Callen.

Callen river at a short distance from its union with the Blackwater river. The town of Richill stands on this stream.

6. The *Cushier*, rises rather central near Baleek village, and flows contiguous to Portmorris in a north-easterly course; thence it changes to a northerly direction, till it meets the village of Clare, and in this course is encreased by several streams, with those which pass by the town of Market-hill, and the village of Mohan.

From Clare, it again takes a north-easterly course to the town of Tanderagee, near to which it is discharged into the Newry canal.

7. The *Tynan* river, which flows near the small town of the same name, in the north-western angle of this county, rises in the county of Monaghan, flows through Castleshane, and meets this county near the village of Middleton; thence intersecting that small angle of Armagh, which runs into Monaghan, it is discharged into the Blackwater, near Caledon.

8. The *Camlough* stream, which is narrow, and very rapid, rises at the lake of the same name, at the foot of Slieve-Guillien mountain, in Killevy parish, and is discharged into the Newry canal; its whole course does not exceed four miles, but the astonishing business performed in the numerous mills on this small stream, of which I shall have again occasion to take particular notice, renders it of the first consequence and value to the county.

The

The rapidity of this water towards the valley of Newry, and the many mill-scites on its banks, which are all overshot, is a very strong corroborating proof of the great elevation of ground, on which Slieve-Guillien mountain stands. The falls of this stream are so sudden, that no head of water is required, as a mill pond, for any of the works, the tail-race of the higher mill being the head of the next below, and so in succession, till it reaches the valley.

9. The *Newtown-Hamilton* river, rises in the mountains, north of that town, passes close to its rear in a southern direction, coursing through the Fews mountains in Creggan parish; and near to Crossmaglin village, it enters Louth county, and flows into Dundalk, where it is emptied into the bay.

10. The *Tara* stream, rising eastward of Newtown Hamilton, keeps a course pretty nearly parallel with the last river, enters Louth county, at about three miles distance from it, and is discharged into the same stream, before it reaches Dundalk.

11. A small mountain stream rises near Forkhill, and enters Louth, about a mile from the last river, meeting it before its junction with the Dundalk river.

12. To these we may add a fourth mountain stream, the *Fleury* river, which rises near Jonesborough, pretty nearly on the verge of this county, and gives name to the small post town of Fleury-bridge; thence it passes through the delightful valley
of

of Ravensdale park, in the county of Louth, and is discharged into Dundalk bay, about two miles north of the town.

13. The south-western borders of the county are marked by a small stream, which is the head of the *river Fane*; after a few miles in this direction, it enters Monaghan county, at the village of Culloville, and intersects a small south-eastern angle of that district, before it becomes that spacious and beautiful river, which flows through the county of Louth, and is called the Fane water; it is discharged into Dundalk bay, at Lurgan-green.

14. 15. There are two other streams, which, though small, deserve mention as boundaries; they rise exactly on the verge of Armagh and Monaghan counties, and are for some distance the line of separation. Their courses are directly opposite, one running north, and the other south, for about four miles each, until they meet; when a new course is made, by the joint streams, of N. E. by E. nearly; flowing near the town of Keady, and a little northward of Lough-Clay, it meets the Callen river; for this reason, it is with propriety contended, that this is the source of the Callen water, and that the stream, which rises in Mullabrack parish, already described, is but a secondary supply, in like manner as a third stream, which joins it near Keady, flowing out of Lough-Clay.

16. 17. 18. In the north-eastern angle of the county, are three small streams, which rise in the parish of Shankill, near Lurgan, and are immediately discharged into Lough-Neagh.

These are the principal rivers and streams in the county, which it is necessary to mention, as forming the natural and prominent features, or deserving notice as conducive to such material benefits, which are derived from the extensive bleach and numerous corn-mills they supply.

There are some lesser streams of inconsiderable importance, and it must be observed, that the numerical arrangement of these rivers is not according to their size, or extent, but merely as they appear important, as a feature on the map of the county, or for their value in the uses, to which they are applied; some only are numbered, for the more easy reference of the reader, in the following table, or when they form a junction with other streams, or flow near to each other. By stating the acknowledged length of the course of each river in its passage through this county, the proportionate body of water will more easily appear, in the area of 283 square miles, the contents of the county, Irish measure.

Table

Table of the Distance which each River runs, and the course it takes through this County.

| No. | River. | Course. | Miles. |
|-----------------------------|---------------------------------------|-------------------------------------|--|
| 1 | Black-water. | from S. W. to N. E. | flows - - 13 |
| 2 | Bann. | from S. E. to N. W. | — - - 9 |
| 3 | Newry-water. | from N. to S. E. | — - - 7 |
| 4 | Callen, 1st branch. | from S. to N. & N. W. | — - - 10 |
| 5 | Tall-Water. | from S. to N. & N. W. | — - - 10 |
| 6 | Cushier, with its small streams. } | from S. W. to N. E. | — - - 21 |
| 7 | Tynan. | from S. W. to N. | — - - 3 |
| 8 | Camlough. | from W. to E. | — - - 4 |
| 9 | Newtown-Hamilton. } | from N. to S. | — - - 13 |
| 10 | Tara. | from N. to S. | — - - 9 |
| 11 | Forkhill. | from N. to S. | — - - 3 |
| 12 | Fleury. | from N. to S. | — - - 1 |
| 13 | Fane. | from N. to S. | — - - 6 |
| 14 } & } 15 } | Two streams flowing. } | from N. to S. & from S. to N. | thence East making together } 12 |
| 16 } 17 } & } 18 } | Three streams flowing. } | from S. E. to N. W. | making together } 9 |
| | | | Total Miles 130 |

Thus,

Thus, independent of smaller streams, there appears, in the map of this county collectively, no less a course of water, than, would extend 130 miles in length, which is conveniently dispersed within the small circumference of eighty Irish miles. Very little damage is ever occasioned by the overflowing of these rivers, nor is there any mischief which can ensue, but may be guarded against with due care and attention, and which the superficial figure of the country is so well calculated to resist.

Lakes.

The lakes in the interior of Armagh are few; the principal are Camlough, or Carlough, and Lough-Clay, which would be rated as very inferior in some neighbouring counties.

Small as is the area of the lake, from whence water is conveyed to the city of Armagh, it is, in this instance, of such importance to so large a district, that it would be unpardonable to omit it.

A small chain of lakes occupy the boundary line, near Middleton, and are of importance to the mills in that vicinity.

Lough-

Lough-Neagh.

We come now to speak of the great water of Lough-Neagh, which forms the northern line of division, and presents so extensive a shore in this view.

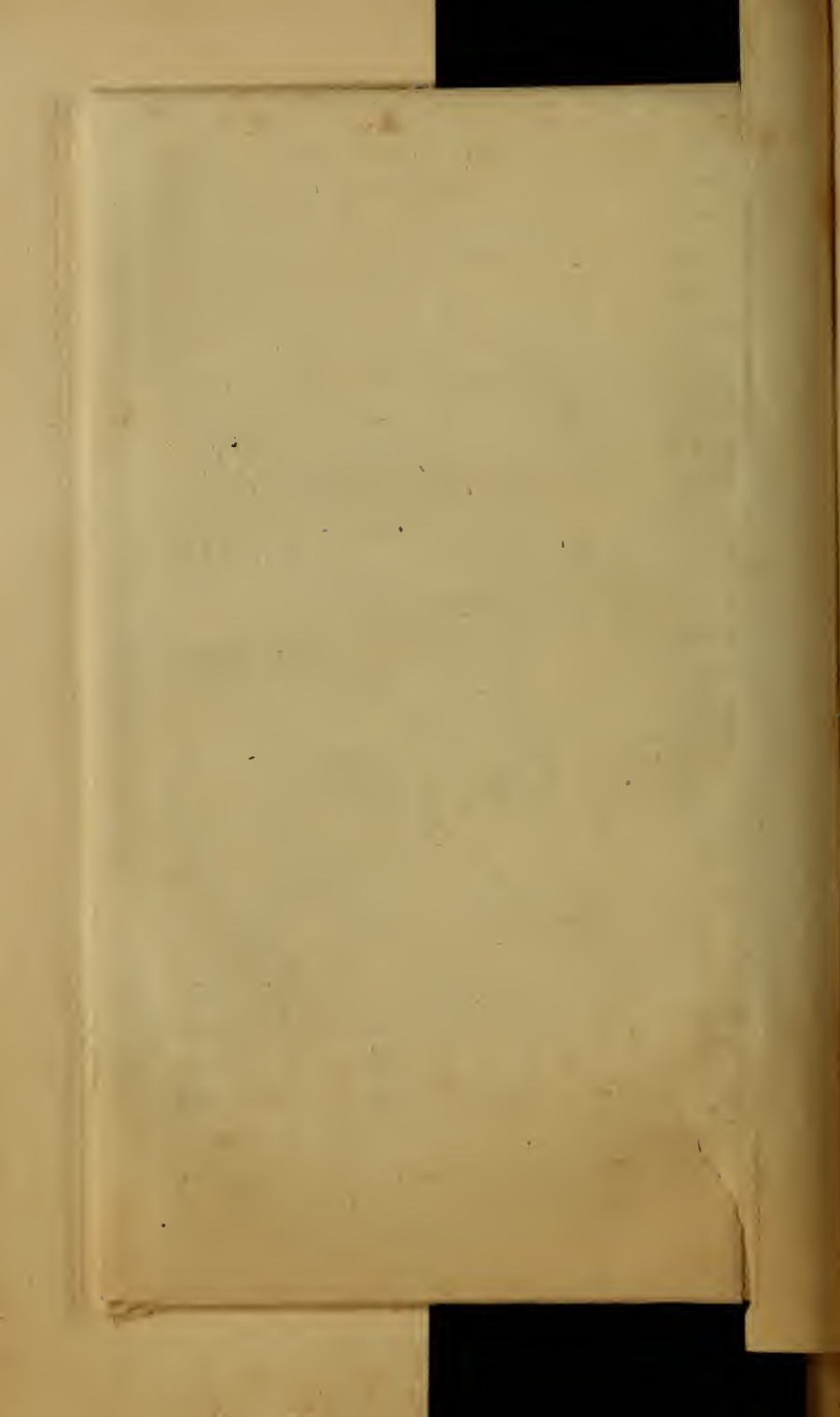
Though, strictly speaking, this vast expanse is only a boundary, yet it requires particular attention; and I had hoped, that the able reporters, who had already given a detail of their enquiries in counties, which are considerably more connected with it than Armagh, would have gratified the public with some account of its natural history, as well as observations on its great importance to the navigations, which flow into it, and the consequent extension of trade, which it encourages, throughout the province of Ulster.

This immense sheet of water, which may be well styled a sea, in comparison with all the other lakes in Ireland, covers a great area, in the heart of the province, and is bounded by five counties, viz. Armagh on the south, Tyrone on the west, Londonderry on the north-west, Antrim on the north and east, and Down, which barely touches it on the south-eastern angle. Small as this angle is, yet on the confines of the lake there is no district, which more materially suffers from its inundations, which here
have



Fold-out Placehold

This fold-out is being digitized, and
future date.



have sometimes overflowed an extensive plain, above seven or eight miles inland, and produced the most mischievous effects.

In all the old maps of Ireland it has been stated, that Lough-Neagh covers a plain of 100,000 acres; but the survey made by Mr. Lendrick directly contradicts this statement, and reduces its contents nearly to one half, to that of 58,200 acres. This gentleman also corrects the figure of the lake, which, he asserts, was laid down as incorrectly as the area, and, by his report, it is fifteen miles in length, by seven in breadth.

It becomes a matter of surprise, that so immense a body of water, which is supplied by the constant influx of several great rivers, and numberless others of lesser note, should have but one narrow channel, from whence these are again discharged; and we should expect on this account, that inundations were so frequent, as to depopulate its shores; but this seldom occurs; perhaps a great overflow will not occur above once in fifteen years.

Where the shore is very flat, it is subject to every flood, and its banks are always marshy, and incapable, from their low situations, of being drained, and a great extent is of this description; in some few places, the coast is bold and abrupt, but entirely destitute of wood, which would be so beautiful a contrast to the lake, although the stumps

and roots of trees, which have been found in several places, prove, that formerly the shores must have been covered with forest; nor is there any of the delightful interruptions, which Killarney and Lough-erne are celebrated for, by the breaks formed in the prospect, with rocky and wooded islands, presenting irregular and undulating surfaces; all here is an unvaried sameness, no picturesque views, or romantic scenery, and but two islands in this great expanse, one near the shore, in the south-western angle of the lake, called Blackwater-island, just at the mouth of the river, of the same name; and the other on the eastern borders, contiguous to the coast of Antrim, named Ram-island, and in this is one of the ancient round towers peculiar to Ireland. This island is rated in the county of Antrim, and diocese of Connor.

The channel, through which this great body of water seeks its passage to the ocean, is called the lower Ban river, and flows in that extensive confine between Londonderry and Antrim counties, nearly in a direction from south to north, for a line of about thirty miles in length, including its curvatures and angles, and is discharged into the ocean, at four miles distance, below Coleraine, on whose banks this capital town is built.

Some authors have considered Lough-Neagh as but an expanse of this river, but the observation
may

may with as much truth be applied to the other six considerable rivers, which flow into it. If the discharging river was called the lower Blackwater, it might have furnished as good grounds for the supposition, as its course would seem to coast the lake from its entrance to Toome; but a moment's reflection on the distinguishing characteristic of lakes will do away this idea entirely, the expansion being of that description of lake, which apparently discharges less water than it receives; for the flow from the lower Ban is by no means equal to the quantity admitted by the seven great rivers, and the many other tributary streams around the shore; the surplus, then, we cannot conceive to be spent in exhalation.

The antient name of this lake was *Echach* or *Eacha*, which in the Erse language signified *divine*, and *loch*, a *lake*, or the divine lake. In the same language *Neasg* or *Naasgh*, a *sore*, might have alluded to its virtues in curing cutaneous disorders, and from thence be easily corrupted into *Neach* or *Neagh*; but Dr. Smith says, the healing virtue of the lake was not discovered till in the reign of Charles the II. when a young man was cured by bathing in the lake, for which remarkable relation I have already referred the reader to Boats' Natural history of Ireland.

The petrifying quality, ascribed to Lough-Neagh, has been long a matter of great doubt and controversy amongst very intelligent and inquisitive naturalists, and is even yet very strongly disputed. So long ago as the 8th century, it has been recorded by Nenius, a writer of that age, as possessing the virtue, who says, "*est aliud stagnum, quod facit ligna durescere in lapides; homines autem scindunt ligna, et postquam formaverunt projiciunt in stagnum, et manent in eo usque ad caput anni, et in capite anni lapis invenitur, et vocatur Loch-Echagh.*" I apprehend those, who seem to doubt this property, have not sufficiently examined it, or tried the experiment; it may be confined to some particular parts, and not to the whole lake, but that this virtue belongs to the soil also in some places, is unquestionable. Perhaps the means, by which petrification is accomplished, is not sufficiently understood in natural philosophy, or the matter might be easily cleared up. It is laid down as a general principle, that petrification cannot take place, but where there is shelter from air and running water; the deep marshes on this coast so far are favourable to it: for the further process, there must be a complete disorganization of the ligneous matter, and all its corruptible parts decayed, and the mere outward shell remaining only, forming a skeleton, in the hollow tubes of which are lodged stony particles, or clays peculiar to water, and that this
moulding

moulding anew of the substance had been there deposited, whilst the waters were evaporating; that, thus condensed, in process of time, when fully petrified, the fossil is considerably heavier than it was in its original state.

The experiment has doubtless being tried, of driving stakes into the bottom of the lake, and into the soil of its shores, which have been suffered to remain twenty years undisturbed without any visible change; but this is no convincing proof of the non-existence of the petrifying power, as probably the process is not completed for a great length of time.

I know the general idea is, that the change is completed in seven years, but this is an idle remark, and no way confirmed; besides it is on holly-wood they particularly ascribe the powers; but it is more probable to suppose, that any soft wood would be sooner decomposed than a hard one.

From some accounts in Boats'* Natural history of Ireland, if they could be credited, this change takes place in a few years, and it is not the soil nor the water, but the vapours issuing from them, which occasion the petrification; he says, a gentleman cut some trees, for building, on the shore of the lake, and amongst others a large holly-tree,

* From page 116 to page 123, in a letter from Mr. William Molyneux, secretary to the Dublin Society, to Mr. William Musgrave, fellow of Oxford College.

tree, but that the disturbances of the times had prevented him from using them, and they lay on the ground for several years, until he thought it safe to pursue his building; but when he came for his timber, he found the holly-tree petrified, and the other timber sound, and covered with moss, and that the water of the lough had never reached it; it is, however, observed, that this story is only given from common report; the gentleman, who relates it, adds, that from his own experiments he is decided, that petrification* is occasioned in wood, in the vicinity of the lake, that these fossils will burn and flame, and the smoke smells like the smoke of wood, and that he had various pieces of them, which had arrived at different degrees of petrification, and one in particular, being clift, he could discover to be holly, and even see the pith in the centre of it, and also the grain of the wood; the outer coat he describes as perfect stone, but the whole reasoning in this instance is by no means conclusive; the reader is referred to the account in the annexed note.

That a petrifying virtue exists in this vicinity, is unquestionable, but it is not sufficiently clear, to what element it may be ascribed, whether to the soil,
the

* We have satisfactory and ocular demonstration of the fact, in the many samples of fossils, now exhibited in the Dublin Society's museum.

the waters, or the exhalation which rise from the marshy borders or the lake itself.

It would certainly be a very desirable matter, that this subject should be well considered by some able naturalist; it is surely worth investigation, and it would be a matter of importance to enquire into its medicinal virtues.

On the strand of Lough-Neagh are found some transparent pebbles, which take a beautiful polish, very much resembling cornelian; some of them are by no means inferior to this stone, are rarely found, and esteemed very valuable in the cabinets of the curious. They are called gems in this neighbourhood, and the peasants easily distinguish them from the other pebbles, which are transparent, and peculiar to this shore; many people make a trade of picking up these gems, and selling them to lapidaries in Dublin. Samples of these are also deposited in the Society's museum.

This lake abounds with salmon, pike, trout, eel, roach, and bream, and a kind of fresh water herring, called in Irish *pollans*; they resemble large smelts, and their scales are very bright; they are much esteemed, and furnish a wholesome supply for the poor.

The shad-fish is caught in the salmon fishery at Coleraine, near where this water is discharged into the ocean; it appears very probable, that those
pollans

pollans are from the spawn of this fish, which has been deposited in the lough, and perhaps requires the sea-water to bring them to perfection.

Navigations.

Considering the advantages of navigation, which Lough-Neagh affords to the several counties on its coast, it is of great importance, and in this political view deserves particular consideration.

The canals, which meet this lake, are the Newry canal, that from Belfast city, and that from the Tyrone collieries; by means of these, a communication is effected between the counties of Down, Armagh, Tyrone, and Antrim, in vessels of sixty tons burthen.

In the reports of the county of Down, some defects in the Belfast line are pointed out, or in that part, which runs between Lisburn and Belfast, rendering the passage uncertain and tedious; it will remain for me to say something of the navigation of this county, but I shall first beg leave to make a remark on the line, which appears the most favourable for an effectual navigation from the sea to this lake, and by which a communication would be procured with the remote counties of Ulster: every observer will allow, that this line
should

should be the valley, through which the lower Ban flows to Coleraine; the entire line of the counties of Antrim and Londonderry would thus be benefited; the expence, comparatively with the advantages to be derived, would be trifling; the principal obstruction is by means of some shoals, which could be easily removed, and several great rocks; but by a partial adoption of the river, for the line of canal, in some places, and receding from it where the difficulties are great, and by making alternate new cuts, it could be performed for a moderate expenditure.*

I know it is contended, that the Belfast trade would probably suffer, and that Coleraine would be more particularly benefited by such a canal; but these selfish considerations are, perhaps, the true reason, why works of this nature, of such general utility, are not more earnestly engaged in; public benefits should never be thwarted by individual interest, and the fears and obstructions, which illiberal and narrow minds will suggest, are often unfounded, and would ultimately, perhaps, have the very reverse tendency, and produce such advantages, as would be felt by the whole community.

I proceed

* I understand an estimate of this expence has been made, and is under consideration.

I proceed now to speak of the navigation, immediately connected with this county, which is called the Newry canal.

Newry canal.

The obstructions, which were encountered on the Newry river from that town to the sea, were so numerous, and invincible by other means, as to occasion the adoption of the present navigation; for, originally, this river could not bear boats, but of very small burthen, and only at high water, as the tide flowed up to the town. The work was considered to be a national benefit, if extended to Lough-Neagh, and there to admit the boats from the Tyrone collieries, and that the coal, brought from thence to Newry, could be dispatched coast-ways to many parts of Ireland, which would keep at home the immensity of specie paid for foreign coals.

The work was entirely completed by parliamentary grants, and placed under the controul of a Board, but there has lately been made a considerable change in its form and government. The original board consisted of twenty-one members, and nothing could be determined without their consent. The noblemen of the counties of Armagh, Tyrone, and
Down,

Down, and the county representatives had each a vote, but the consequence was, that the business was greatly neglected, as they found it difficult to bring so many gentlemen together, as would make a board; if casual repairs were required, they of course could not be amended, and the navigation was for long periods impeded, and rendered so uncertain, that the great trade from Newry, which was formerly carried on this line with the counties bordering Lough-Neagh, has been transferred to Belfast, which has wonderfully rivalled Newry of late years, and deprived this town of many branches of her trade.

If in consequence of the neglect of a necessary expenditure of money, for long periods, the works were greatly injured, yet the small tolls, which were yielded in particular places, that still remained navigable, were husbanded with great care and management by the Rev. Doctor Campbell, of Newry, who was secretary to the board, and the savings amounted to no less than 5,000*l.* in hand, when that gentleman lately resigned.

Since the new establishment has been adopted, this sum, together with a large grant from the general navigation board, has been expended in some material repairs and improvements.

The board of twenty-one is now abolished, and the management of all affairs, relating to the canal,

is

is vested in conductors, who must be resident merchants in Newry, and naturally are interested in the prosperity of the trade of the town; five of these constitute a board, they recommend what they think necessary to be done, and communicate their opinions to the general navigation board, who order them to be adopted or rejected at their discretion.

The annual tolls now amount to 2,500*l.* but formerly were treble this sum, and, lately, considerably less; for one boat, which now plies, about seven or eight years ago perhaps ten or fifteen were in constant employment; however, the trade is again improving.

Limestone, sand, lime, and all manures, are toll free, no inconsiderable encouragement to agricultural improvements. Timber is freed into the canal, but pays a small toll in its passage; other goods pay a fee of entrance.

The navigation is now greatly improved from the town to the sea, but the new locks, which have been lately built, are too narrow by three feet, being only twenty-two in the clear; they only require that alteration, to admit large vessels to come up, which now unlade at Warren point, six miles from Newry; lighters take in their cargoes, and enter the canal at Fathom.

For

For two years past, the works have been under a general repair, and the line is now well supplied with water. The Cushier river will immediately be let in, and a trough or tunnel, of cut stone, is now building near the noted burial place of Ballynaback; Lough-brickland and Lough-shark waters already supply it.

The whole length of this navigation, from the junction with the tide-water at Fathom to the town of Newry, is four miles; from thence to Lough-Neagh twenty-seven miles, in toto thirty-one Irish miles.

Its advantages are common to the whole line of country, westward in Armagh, and eastward in Down; running for the greater way in that valley, which constitutes the bounds of those two counties; in respect of the several towns and villages on its banks, we will hereafter shew, how they are particularly benefited, in the 13th chap. and 5th section.

The great mistake in inland navigation, as has been proved in various instances, is the adopting the beds of rivers for the lines of canal, under the idea of a saving of money; but in fact it occurs, that this only tends to great and lasting expence. Rivers, from their low situation, naturally receive all superficial water, from snow and rain, as well as from springs, and are, of course, subject to
floods,

floods, which not only interrupt the passage, but frequently sweep away the works, and leave them liable to incalculable expence: how many such navigations are there, at present, in Ireland, on which thousands have been expended to no good purpose, and whose defects cannot be remedied, but by abandoning the bed of the river, and adopting a new line? A partial selection of river beds, in favourable situations, such as are not subject to floods, is sometimes very adviseable, but where the river is liable to rapid torrents, a navigation should never be thought of.

Formerly, the making of canals was only considered adviseable, in proportion to the trade, which, it was calculated, was transported by land carriage, and would ultimately defray the cost of the work; but there are many instances, of late years, to prove that such a calculation is too niggard, and that canals have not only assisted trade, but created new branches of commerce, as well as materially improved agriculture. The prosperous state of all the infant towns, on the Grand canal line, peculiarly confirms this observation, where, but a few years ago, nothing but a bleak and uncultivated waste, or dreary bog, was to be seen. The immense rise on landed property, in this extended line of canal, has already exceeded the most sanguine

guine expectations, and this success should create an emulation amongst the gentry in this province, to forward works of such great importance to the natives in general, and particularly so to their own private interests.

Fish.

Before we conclude this section, I shall say a few words on the animal and vegetable kingdom peculiar to the element, of which it treats. The connection of the rivers of this county with the sea, by means of Lough-Neagh, has supplied them with salmon, which fish resorts all the major waters. I have already mentioned, that there is a kind of smelt or shad-fish, peculiar to the lough, and very abundant, so as to furnish an amply supply for the poor. I do not learn there is any established right of fishery in Lough-Neagh, but there is no interruption to any adventurer. Lough-Neagh, and the mouths of the neighbouring rivers, are celebrated for a very fine kind of salmon-trout, which are frequently taken to the weight of above thirty pounds. The common trout, found in all rivers, is abundant, and of a large size, in most of these rivers.

The

The pike is found in Lough-Neagh, Lough-Shark, the Ban, and the Blackwater ; the eel is of a large size, and very plenty, in rivers connected with lakes. The bream and roach are numerous, and easily taken with bait.

Aquatic Birds.

Of the feathered tribe, peculiar to this section, are the wild duck, widgeon, teal, all the variety of gulls, sea-plover, swans in great abundance, wild geese, cape-geese, herons, curleus, coots, water-hens, king-fishers, and divers.

There is scarcely a description of water-fowl, which are common to the sea-coast or great lakes, but frequent many miles around the vicinity of Lough-Neagh, and, in hard weather, take shelter in the adjoining demesnes. To Mr. Brownlow's beautiful lake, at Lurgan, they have a constant resort, as they are always protected, and are now become so familiar there, as to regularly breed every year.

Amphibious animals.

The otter, which is so destructive to fish, is sometimes seen in the Cushier river, and has even frequented

frequented the Newry water, but seldom of late years.

The water-rat is common in the marshes, on the shore of Lough-Neagh, and it is said the bite of this animal is venomous and difficult to cure.

Aquatic plants.

The most useful aquatic plant is the *poa fluitans*, or the water-fescue grass, which is found on the borders of the marshes, that are left dry in summer; this grass is luxuriant, and makes excellent hay. When this plant appears, the marshes are covered with water-fowl, which delight in feeding on it.

The *iris*, or flagger, flourishes on the banks of the river Callen; I have seen excellent garden-mats made of this plant, and also bed-mats, which it is peculiarly proper for, as it will not rot on ground floors.

The *ranunculus*, or crow foot, is common to all low marshy grounds.

The water-lily, *nymphæa*, grows on the borders of Lough-Neagh, and in muddy ditches; there are two kinds of this plant, both white and yellow; of the latter, dye-stuff is produced by decoctions, and is of a deep brown colour.

The water-hemlock, or *phellandrium aquaticum*; this plant is eaten by all our cattle, but cows, which will refuse it; it is said to sicken horses, yet they eat it greedily; stupes of it are known to be powerful in repelling; it grows on the banks of the Cushier and Blackwater rivers, and in the vicinity of Lough-Neagh.

The *euphrasia*, or eyebright, useful for complaints in the eyes, is frequently met in the low grounds near the river.

The *colchicum*, or meadow saffron, grows on the borders of the Blackwater and the Callen, and is highly ornamental, its flowers affording a beautiful variety; the medicinal virtues of the root are diuretic and balsamic, when old, but it must be used with great caution, for even a small quantity of it, when young, is acrid and highly poisonous; the root is bulbous, the flowers are a variety of shades, of red, yellow, white, and purple; it grows in low meadows, on the banks of rivers, and in marshy places.

The *senecio paludosus*, or bird's tongue, in low marshes.

The mare's tail, or *hippuris*, grows in stagnant waters, and is found in the marshy ground near the junction of the Newry canal with Lough-Neagh; its

its properties are astringent, cattle refuse it, but goats eat it greedily.

The pondweed, or *potamogeton natans*, is an agreeable and wholesome plant to cattle, and grows in stagnant waters near Lough-Neagh.

The *parnassia*, or grass of parnassus, a plant of extreme elegance and beauty, grows in the vicinity of Lough-Neagh, and on the banks of the Tynan river.

The water figwort, or *scrophularia aquatica*, is esteemed, when mixed in an ointment with hog's lard, as a cure for scorbutic ulcers, and, it is said, a strong decoction of this plant will cure the measles in pigs; it grows on the banks of the Newry water.

The *mentha aquatica*, or water-mint, is too well known to require any comment, and is found in all the low grounds and marshes in this county.

Amongst the ornamental aqueous plants, many of which are medicinal, are the *lysimachia*, or loosestrife; the *lythrum salicaria*, or purple loosestrife; the *menyanthes*, or purple buck-bean, which is extremely beautiful; the *thalictrum flavum*, or meadow rue, which I found on the lake side near the summit of Slieve-Guillien, and, on the river side, near the village of Middleton; the *typha angustifolia*, or narrow leaved cat's-tail which produces

duces a fine down, and certainly might be turned to useful account, in stuffing cushions, &c. To these may be added a collection of curious plants, which flourish in the marshes, on the borders of Lough-Neagh, and will afford a pleasing variety to the researches of the botanist.

CHAP. II.

*STATE OF PROPERTY.*SECT. 1. *Estates.*

A VERY considerable tract of the lands of this county is church and college property, and the management of estates requires much cleverness in their regulation to the mutual advantages of the landlord and tenant. The parcels of ground, or farms, if I may so call them, being very small and numerous; rents being paid so irregularly, on account of the many divisions of these little plots; the attention necessary for proportioning turf bog and approaches to each little farm; and the judicious laying out of new roads, are together fully adequate to employ the time of an active agent, who will also have no small trouble in his magisterial capacity to adjust disputes amongst the tenantry.

SECT.

SECT. 2. *Tenures.*

THE property of Armagh is of three descriptions, freehold, church, and college lands; the two latter descriptions considerably exceeding the first, in many parts of the county.

Leases in perpetuity are not numerous, nor of great value; the terms are but short, twenty-one years and a life, or a life only; some are for thirty-one years, or three lives, and on account of the short tenure few are under value. Landed property is in much demand, and a small estate well circumstanced will bring from twenty-five to thirty years purchase; few large estates have been offered for sale.

There are some great properties in college lands to the first lessee, but the occupying tenantry pay the full value; where farms are so small, the land seldom suffers in the same manner as great tracts of church land, which are seen in various parts of Ireland, where the lease is but during the interest of the incumbent, in the heart of a country, where the surrounding farms are leased for a long term of years, and where such tenures are the custom of the country: in such places, it is very discouraging for a wealthy farmer to have any thing

thing to do with church lands, as his improvements cannot even be secured to him during his own life, or the life of his landlord, but he may at any time be deprived of the fruits of his industry, by the incumbent changing his living, as his interest then terminates, during which only he could set.

The church and college lands in this county are, of course, subject to all these inconveniencies; yet from the great extent of the linen trade, land is in such demand, and, from the similarity of adjoining tenures, even on freehold property, in respect of duration, few leases being longer than twenty-one years, or a life, the grievance is scarcely felt, and the farms are in no less esteem.

But one advantage so materially, and, from what I have seen, almost solely enjoyed in this county is, that the occupying tenant has no lazy middleman between him and his landlord. Where there are large farms, none of which are met here, as much land is generally set by the original lessee at a rack rent, as will leave himself a great portion, and the prime of the farm, rent free; but, where agriculture is not the main pursuit, and gives place, as here, to manufacture, there are so many bidders for farms at a high rent, that it is the interest of the landlord to give each tenant only sufficient ground for his family, and thus none can be spared to a middleman. In asserting that this baneful
system

system is not felt here, it must be understood that the original lessees of church and college property are not rated as middlemen; they should, more properly speaking, be termed the head landlords, as those establishments, to which they are annexed, in few instances derive from the original lessees a tenth, or more, of the rental, which they themselves receive, and the equal estimation of such tenures is the best proof there is no grievance in this respect to the occupying tenantry.

SECT. 3. *Rental.*

THE rental of the cultivated parts of Armagh, including the reclaimed spots in every district through the county, may be rated, on an average, at 25s. per acre. The tenures are almost all in English acres; those parts of the mountains and other wastes, which bring but a very low rent, are few, in comparison with the like tracts in other counties; and as Armagh is allowed to be the most populous county, so must its lands be in the greatest demand, and they, of course, are enhanced by the superior excellence of the soil. Perhaps a fifteenth part of the county only is not in profit, including towns, villages, bog, mountain, wood, and water, which let us deduct from the
gross

gross number of acres, which pay rent, the remainder at the supposed valuation of 25s. per acre, plantation measure, the average of the cultivated lands, will produce the gross rent of about 209,000*l*. This calculation has been tried different ways and found nearly to agree, by striking off the probable superficial waste, and uncultivated spots, whether from sterility or local circumstances, as water, &c. by computation of the allowed population proportioned to the number of acres, and by the reports of the statistical surveys of counties bordering on Armagh.

Let the reader view the waters and mountains, as laid down in the best maps of the counties of Ulster, or, if he is acquainted with the province, bring those wastes to his memory, and he will find that a deduction of one fifteenth in the superficial area of the county, not in profitable culture, will be nearly the proportion, and that 25s. per acre will be about the average rental of the occupying tenantry.

SECT. 4. *Landed Proprietors.*

Alphabetical abstract of the names of gentlemen, who have freehold property in Armagh, with the residence of such as have houses in the county, specifying the barony, in which each property is situated.

County at large.

His Grace the Lord Primate.

Barony of Armagh.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|---|
| 1, | Blakely, Esq. | Anne-ville. | { These are the only freehold land owners in the barony of Armagh; the remainder of the lands consist of church and college property. |
| 2, | Charlemont, Earl | No residence. | |
| 3, | Close, Rev. Mr. | Elm Park, | |
| 4, | Cremorne, Viscount | No residence. | |
| 5, | Farnham, Earl | No residence. | { A great property under the college of Dublin, on which is a valuable lead mine. |

No.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|---|
| 6, | Hickey, John, Esq. | Tullamore. | |
| 7, | Holmes, — Esq. | Hew Holland. | |
| 8, | Johnston, — Esq. | Nappa. | |
| 9, | Levingston, — Esq. | Armagh. | |
| 10, | Maxwell, John, Esq. | No residence. | These three proprietors hold an immense estate under the college of Dublin. |
| 11, | ——, Rev. Henry | Ditto. | |
| 12, | ——, Robert, Esq. | Elm Park. | |
| 13, | M'Can, Robert, Esq. | Armagh. | |
| 14, | M'Cartney, — Esq. | Rosebrook. | |
| 15, | M'Gough, Joseph, Esq. | near Armagh. | |
| 16, | Perry, — Esq. | Armagh. | |
| 17, | Scott, — Esq. | near Armagh. | |
| 18, | Simpson, — Esq. | near Armagh. | |

Barony of Turenny.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|---|
| 1, | Bond, — Esq. | Bondville. | |
| 2, | Caledon, Earl | No residence. | |
| 3, | Charlemont, Earl | Ditto. | |
| 4, | Cross, — Esq. | Ditto | |
| 5, | Gosford, Viscount | Gosford. | |
| 6, | Hamilton, Robert, Esq. | No residence. | |
| 7, | Johnston, — Esq. | Ballynametagh. | A minor, his seat in the occupation of Mr. Burgess. |
| | | | |

No.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|--|
| 8, | Middleton estate | | { Purchased by Doctor Sterne, and bequeathed by him to trustees for certain charitable uses. |
| 9, | Pringle, — Esq. | No residence. | |
| 10, | Steele, — Esq. | No residence. | |
| 11, | Strong, Rev. Mr. | Fairview. | { This seat in the occupation of Captain Waring. |
| 12, | Verner, — Esq. | Churchhill. | |

Barony of O'Neiland West.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|--|
| 1, | Ashmur, — Esq. | Newry. | |
| 2, | Brownlow, W. Esq. | Lurgan, | |
| 3, | Charlemont, Earl | No residence. | |
| 4, | Cope, Archdall, Esq. | Drummilly. | { This seat in the occupation of Colonel Cope. |
| 5, | —, Colonel | Ditto. | |
| 6, | Dungannon, Viscount, | No residence. | |
| 7, | Forbes, — Esq. | Ditto. | |
| 8, | Harden, — Esq. | Harrybrook. | |
| 9, | Hardy, — Esq. | Drummart. | |

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|--------------------------------------|
| 10, | Kelly, — Esq. | Armagh. | |
| 11, | Lawson, — Esq. | | |
| 12, | Marks, — Esq. | | |
| 13, | M'Craight, — Esq. | New Grove. | { Now called Waw- kenshaw's grove |
| 14, | M'Gough, — Esq. | near Armagh. | |
| 15, | Molesworth, A. Esq. | Fairlawn. | |
| 16, | Molyneux, Sir Capel Bt. | Castle Dillon. | |
| 17, | ———, T. Esq. | No residence. | |
| 18, | Newton, — Esq. | Ditto. | |
| 19, | Obins, — Esq. | Portadown. | |
| 20, | Obre, — Esq. | Clantelew. | |
| 21, | O'Donnell, — Esq. | Summer island. | |
| 22, | Richardson, W. Esq. | Richill. | |
| 23, | Shields, — Esq. | Hockley. | |
| 24, | Verner, — Esq. | Churchhill. | |
| 25, | Wakefield, — Esq. | No residence. | |
| 26, | Workman, Miss | Mahon. | |

Barony of O'Neiland East.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|----------------------|
| 1, | Blacker, Rev. Dean, | Carrick. | |
| 2, | Brownlow, W. Esq. | Lurgan. | |

No.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|----------------------|
| 3, | Burgess, — Esq. | Wood Park. | |
| 4, | Cope, Archdall, Esq. | Drummilly. | |
| 5, | Cuppage, Colonel | Silverwood. | |
| 6, | Fivey, John, Esq. | Knocknamuekly. | |
| 7, | Ford, James, Esq. | No residence. | |
| 8, | Grier, Joseph, Esq. | Eliza Hill. | |
| 9, | Hall, John, Esq. | Lurgan. | |
| 10, | Magennis, — Esq. | Waringstown. | |
| 11, | M'Veagh, — Esq. | Lurgan. | |
| 12, | Robinson, — Esq. | Lilo. | |
| 13, | Sparrow, Colonel | Tanderagee. | |
| 14, | Turner, — Esq. | Newry. | |
| 15, | Waddell, — Esq. | Springfield. | |

Barony of Lower Orrior.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|--|
| 1, | Bell, — Esq. | Pointz Pass. | |
| 9, | Cope, Henry Esq. | No residence. | |
| 3, | Dawson, Colonel | Clare Castle. | { In the occupation of Mr. Leigh. |
| 4, | De Salis, Count | No residence. | |
| | | | { Inherits the estate of Lord Fane joint- ly with the Earl of Sandwich. |
| | | | |

No:

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|--|-----------------------------|---|
| 5, | Hanna, — Esq. Re- presentatives of } | Acton. | |
| 6, | Harden, — Esq. | Harrybrook. | |
| 7, | Levingston, Rev. Mr. } Representatives of } | Clare. | |
| 8, | Lofty, Wm. Esq. | Tanderagee. | |
| 9, | Macartney, — Esq. | No residence. | |
| 10, | McConwell, — Esq. | Mullavilly. | |
| 11, | More, — Esq. | Drumbanagher. | |
| 12, | Sandwich, Earl of | No residence. | { Inherits the estate of Lord Fane joint- ly with the Count De Salis |
| 13, | Sparrow, Colonel | Tanderagee. | |

Barony of Upper Orior.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|----------------------|
| 1, | Atkinson, George, Esq. | Flour Mills. | |
| 2, | Ball, — Esq. | Crossmaglin. | |
| 3, | Barton, Mrs. | Forkhill Lodge. | |
| 4, | Charlemont, Earl | No residence. | |
| 5, | Corry, Rt. Hon. Isaac | Derrymore. | |
| 6, | Courtney, — Esq. | Southwark. | |
| 7, | Hall, — Esq. | No residence. | |
| 8, | Jackson, Mrs. | Forkhill. | |
| 9, | Jones, — Esq. | No residence. | |

No.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|----------------------|
| 10, | Moore, — Esq. | Drumbanagher. | |
| 11, | M'Neale, J. Esq. | No residence. | |
| 12, | M'Neale, Neale, Esq. | Jonesborough. | |
| 13, | Needham, — Esq. | No residence. | |
| 14, | Seaver, — Esq. | Heath Hall. | |
| 15, | Turner, — Esq. | Newry. | |
| 16, | Whaley, — Esq. | No residence. | |



Barony of Lower Fews.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations,</i> |
|------------|---------------------------|-----------------------------|-------------------------|
| 1, | Acheson, Hon. Col. | Gosford. | |
| 2, | Charlemont, Earl | No residence. | |
| 3, | Gosford, Viscount | Gosford. | |
| 4, | Haywood, — Esq. | No residence. | |
| 5, | Reed, — Esq. | Ballymoier. | |
| 6, | Synnot, Sir W. Bart. | Ballymoier Lodge. | |
| 7, | Vernon, — Esq. | Hockley. | now set to Mr. Shields. |
| 8, | Wilson, — Esq. | No residence. | |



Barony of Upper Fews.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|---------------------------|-----------------------------|----------------------|
| 1, | Ball, — Esq. | Crossmoglin. | |
| 2, | Charlemont, Earl | No residence. | |

No.

| <i>No.</i> | <i>Proprietors Names,</i> | <i>Places of Residence,</i> | <i>Observations.</i> |
|------------|--|-----------------------------|----------------------|
| 3, | Eastwood, F. Esq. | No residence. | |
| 4, | ———, Rev. John, | Ditto. | |
| 5, | Hamilton, Right Rev. Doctor, Bishop of Ossory, | } Ditto. | |
| 6, | Henecy, — Esq. | | |
| 7, | Hill, — Esq. | Ditto. | |
| 8, | Kelly, Rev. Mr. | Armagh. | |
| 9, | M'Can, — Esq. | Carritt. | |
| 10, | M'Comb, — Esq. | No residence. | |
| 11, | M'Gough, — Esq. | near Armagh. | |
| 12, | M'Masters, — Esq. | near Cullaville. | |
| 13, | O'Callaghan, O. Esq. | Cullaville. | |
| 14, | Reed, Joseph, Esq. Jun. | Ballymoier. | |

CHAP. III.

BUILDINGS.

SECT. 1. *Public Buildings.*

TO the princely liberality of the late Lord Rokeby this county is indebted for the numerous elegant public buildings, that environ and adorn her metropolis, which, from his Grace's care and attention, may well be said to possess also the most elegant built streets, the best regulated police, and the most numerous advantages of any inland town in Ireland. When we shall speak of the town in its proper place,* the public buildings will be particularly described.

The several towns and villages in the county have the general characteristic of neatness and proportion in their buildings, as will also be shewn in the course of the work.

The

* See Chap. 13, Sect. 1.

The churches throughout this county, and indeed through this whole metropolitan diocess, are extremely well appointed, simple and chaste in their architecture, and display a lightness and elegance for which they are justly admired.

SECT. 2. *Houses of the Gentry.*

THE magnificent palace erected by Lord Rokeby, during his primacy, being detached from the town and surrounded by a beautiful demesne, may be styled under this section, and is unquestionably the most magnificent building in the county.

The majority of the most wealthy proprietors' houses are quite in the old style of architecture, and have been the castles of their day; they are generally erected in low situations, under shelter of a hill; and the wealth, not the taste of the proprietors, is exhibited in these bulky mansions.

The erection of many of these are the covenants, by which the original proprietors enjoyed their grants; they must have been considered in those times as magnificent edifices, and were so strongly fortified, as to leave no apprehensions of attack or surprise; the apartments, however, possess all the

comfort and convenience, for which antique buildings are remarkable.

In the more modern mansions we see compactness, and a correct style of architecture, but few of them are on a large scale ; they will, however, be spoken of in another part of the work.

SECT. 3. *Farm-houses, and Offices.*

THIS description of buildings ranks in the middle class, between the gentleman's house and the cottage, and, strictly speaking, is scarcely to be found in this county. The more industrious, yet less wealthy occupier than the gentry, in other counties, is the respectable farmer, who acquires his property by the pursuit of husbandry ; but here, this middle class is engaged in the linen business ; we cannot call his a farm house, 'tis more properly a manufactory ; agriculture is but a secondary consideration, and he will not be encumbered with more land in his own occupation than is necessary for his business. The habitations of this respectable class may be more justly ranked under the head of the preceding section ; and to such houses are annexed excellent and commodious offices, besides all the necessary buildings for conducting their works, mills, &c.

SECT.

SECT. 4. *Manufacturers' Houses, and Cottages.*

THESE habitations, of the better kind, are similar to the small farm-houses in other counties, and are generally confined to a ground floor; the apartments consist of a kitchen, dairy, and perhaps several small bed-rooms, and a workshop. It is to be regretted, that the sedentary employment of the weaver has been rendered still more unwholesome by his being obliged to shut up so many windows and chimneys of his house to evade the taxes. Ground floors particularly require ventilation and frequent fires in the apartment, but in many of these cottages there is no admittance of air but through the door.

Such defects might be remedied, to the better health and comfort of the manufacturer and peasant, and, perhaps, to the improvement of the revenue; the partial repeal could not hurt these taxes, as the people deprive themselves of the light and necessary air rather than submit to the imposition.

The offices of this description of houses consist of a cow-house, stable, and pig-sty, generally under one roof, thatched with straw, and the walls of mud. The cottage is also thatched, but the walls are built of stone and mortar.

The

The wealthy weavers have all their houses of stone, and the apartments fully correspond with the engaging and neat exterior, and are remarkable for comfort and cleanliness.

Bog oak is esteemed very much for roofing, but in many places the country affords so little timber, that they are obliged to use foreign deal, which comes very expensive.

The miserable hovel of the lowest class, which so often wounds our feelings in other parts of Ireland, is scarcely to be seen here, nor does that squalid poverty or filth disgust the traveller, which more southern provinces too often display, and which is perhaps less to be found in Armagh than in any other county in Ulster. The meanest hut has something of neatness to recommend it; almost in every one the exterior is white-washed, and the roof well thatched, with a neatly enclosed little garden, affording abundance of esculent vegetables, and also a pleasing relaxation from the sedentary labours of the loom.

Happy country, whose very peasantry feel the blessings of independence, resulting from their own honest exertions; whose labour is not bestowed on an ungracious soil, or a precarious manufacture, and is sweetened with the hopes of sure reward, which, when gained, is not lavished in idleness or dissipation, but wisely applied to the encreasing
the

the comforts, and advancing the respectability and independence of a well civilized and industrious community.

On reviewing the subject of this chapter, we will find the public buildings elegant and commodious, the mansions of proprietors, in general, more of the antique ostentatious style than of modern or chaste architecture; the houses of respectable gentry, more engaged in business, neat and well finished; and the farm-houses, and cottages, indisputably comfortable, cleanly, and well appointed, with the exception of a great privation of light and ventilation.

CHAP. IV.

MODE OF OCCUPATION.

SECT. 1. *Size of Farms.*

THE soil being excellent, the pursuit of manufacture, and the population very numerous, are the causes of the small size of farms, which are of so little extent as to leave the average of the county at less than five acres. Industrious and wealthy people are fond of seeing their children early providing for themselves; the various arts of the linen manufacture are easily acquired, even by children; and young folks are, in this county, soon obliged to lend their labour, or are sent out, on their own account, to commence a livelihood; a scrap of land is now the great desideratum for a cow's grass, and a garden, nor does the indulgent parent often refuse a portion of his own scanty plot, to ensure the comforts of the young people. Marriages are therefore

therefore encouraged, and take place very early ; this is by no means a secondary cause of the subdivision of farms, or of the great value of land.

Proprietors find it in their account to let land in small parcels, as the weaver will pay for just what suits his own convenience, in the vicinity of a good market town, much more, than could be afforded for a large farm, the rent of which is to be made by the business of agriculture.

To these we also may add another cause, that the political interest of the proprietor is greatly increased in the county, though I must here do justice to the general spirit of independence in the electors of Armagh by remarking, that it must be something more than extent of property, which will ensure to the landlord the disposal of his tenants votes ; they feel the value of their franchise, and on these occasions frequently take the liberty of thinking for themselves, and deciding perhaps exactly contrary to the choice and interest of their landlord.

Though the average size of farms is certainly small, yet there are some of large extent ; these are principally situated in the Fews mountains, and afford a good pasturage for young cattle, and this may be considered the second or the other kind of division. I speak not of demesne ground occupied by the gentry, nor of the tracts which bleachers
occupy

occupy for their greens ; these, though numerous, are not subservient to the business of husbandry, either in arable or pasture.

The occupation of the first, or more numerous class, is merely for the raising of provisions for the people employed in the linen manufacture.

The second, and but inconsiderable, is pasturage for young cattle.

More minutely considering the former, the size of their farms seldom amounts to twenty acres, and often does not exceed one or two ; many of these farmers are master weavers, and are styled manufacturers ; though they do not work at the loom, they employ many weavers ; their time is occupied at market chiefly in procuring yarn for their journeymen, or disposing of their webs ; where a man of this description settles, and is so fortunate as to get a few acres, he soon establishes a manufacturing village around him, with those families to whom he gives employment.

SECT. 2. *Character of Farmers.*

As the pursuits of husbandry, exclusively occupying the attention of the people, are scarcely
to

to be found any where in this county, it is difficult to point out the farmer unconnected with manufacture. Under this head, therefore, we cannot distinctly speak of such a person.

From early habits of industry, and the knowledge of the value of labour even children accumulate money, and feel a degree of independence; and as money is the reward of labour, so it is more prized when acquired by industry; thus, a knowledge of the world, and the value of various commodities are learned at a very early period, and, perhaps from this circumstance, more knowing and clever dealers are not to be met with than in this province.

The many wise and strict regulations, which relate to the linen business, and the impartial distribution of justice in its laws, defy dishonesty in a great measure, and it is rarely attempted in the various dealings of the trade.; but a very strong propensity to a traffic in horse flesh generally prevails, and perhaps in no county in Ireland is jockeyship practised with more extraordinary enterprize, shameless fraud, or greater success; the knowledge of recipes for disguising the blemishes of this most generous and useful animal, the quickest and most injurious methods of what is termed getting him into condition, and the many cruelties practised to make him appear spirited and lively, are esteemed as invaluable nostrums, and are withheld from the
nearest

nearest relatives and neighbours with close and mysterious secrecy, each jockey confiding in his own superior judgment and knavery, and the infallibility of his remedies. To disclose this valuable knowledge, he considers, would be the same as furnishing his competitors, in the trade, with materials against his own interest.

If this general abuse through Ulster may be offered in extenuation of any particular county, it is less excuseable, though in no place more generally practised, than in Armagh.

The people ought to be more honest, as being more wealthy, and better informed than their neighbours, and the increasing demand for the article of their trade leaves them totally independent of any secondary pursuit.

So greatly has this mania raged here, that the ambition of acquiring an excellence in the art, or what they term a name, has actually been the inducement, rather than the profit which might arise from the traffic. I mention it with regret, but truth compels me to remark this provincial disgrace, and it is strange, that the man, who with the most bare faced effrontery will endeavour to defraud his neighbour in this dealing, would not perhaps attempt an imposition in any other, and with the most scrupulous exactness would refrain from

from the infraction of all the exterior marks of religious duties.

Hence it may be concluded, that the transactions at fairs are not the most respectable.

If the character of the people were to depend on the exposition of their dealings at such places, little could be said to their credit.

SECT. 3. *Rent.*

RENT is always paid in specie, where leases exist. Cottiers, who indeed are few, and the journeymen of manufacturers pay their rent in personal services; as none but verbal covenants subsist with this latter description of tenants, they are only bound so long as it is their own and their employers' mutual pleasure or benefit. Some duties, which ought to be considered as rent, exist in leases at times, but are not exacted. The tenant should, however, understand that a receipt for such is necessary, as well as for the rent in money, nor would a liberal landlord, who scorns to exact these degrading relicks of the feudal system, refuse to give a receipt for them, or strike them out of the lease altogether.

All

All rent is paid in specie, which is a great emolument to the agent of a large estate ; he sells the gold to the linen merchant, at from two to three or four per cent in exchange, for bank notes, the entire of the linen trade being carried on with specie only. At fairs, or markets, the purchaser must pay in specie, or allow the discount, except there is a previous agreement that bank notes will be taken.

SECT. 4. *Tithes.*

A SUBJECT of so great importance, as should tend to any alteration or revolution in the church, should be touched with peculiar caution.

It is complained, that animadversions on this subject have been too freely discussed in some of the Statistical Surveys, which have been already published. What I have offered to public consideration, was with diffidence and caution, to avoid giving offence, and indeed with great reluctance. But the subject of tithes being an article laid down by the Dublin Society in their detail to be enquired into, it is the duty of the reporter to declare truths,
and

and, in exposing errors, to point out remedies for their amendment.

That in this system there are errors and abuses, very destructive to the real interests of agriculture, cannot be denied, and it should, however, be remembered, that such errors are sanctioned by the laws of the land. When parties and troubles have subsided, it is to be hoped that the legislature will seriously think of correcting the evil, nor suffer the idle bugbear of the danger of the church by any amendment in this system to deter them from considering the subject. In the mean time, a fair and honorable compromise between the incumbent and his parishioners, by an acreable assessment, would greatly lighten the burthen. Tithe-proctors would thus be dispensed with, nor would the poor man feel the effect of his griping avarice.

I have seen many instances, where a reasonable composition ensured peace and harmony with the pastor and his flock; in this case, the former is much better paid, and the latter scarcely feels the charge.

SECT. 5. *Leases.*

MUCH of this county is held under church and college leases, which of course are not freehold.

Other properties are leased generally in freehold, for lives and years, or lives only.

Twenty-one years, provided the incumbent's interest so long continues, is the term of church leases.

Several leases of private property are for the term of twenty-one years, and one, two, or three lives; thirty-one years and three lives are rarely granted. The more general term is for one life and twenty-one years, some few for a life, or lives only, and very few indeed are leased in perpetuity.

Clauses in Leases.

The penalties are not insisted on, when there is any infraction of clauses; but the restrictions are not numerous, nor burthensome, even were they exacted.

The

The most useful restrictive clause would be to prohibit alienation of lands if it could be effected, but great difficulties bar its operation. The interference of the middleman between the landlord and occupying tenant is universally allowed to stand as a total eclipse between agriculture and improvement.

CHAP. V.

Implements.

HITHERTO the implements of husbandry have been very few, and are only encreasing in demesne grounds. A light plough, harrow, and spade, only, are required to cultivate the lands. A wheelbarrow, and boxed car for carrying home turf and potatoes, or for putting out manure, make the sum of their farming utensils, all of the commonest and most unwieldy shape.

Those gentry, who have introduced improved implements of husbandry, will be mentioned in the baronial survey, thirteenth chapter.

The Scotch plough seems very well adapted for this soil, and it is rather encreasing in repute, and, from the exact and peculiar formation of the mould-board, it is strongly recommended.

The

The harrows are very light with short teeth, and are but poorly effective.

I would recommend Mr. Christy's* farming apparatus, to be carefully inspected by amateurs. This gentleman's mechanical abilities are well calculated to make improvements in the art, which he has in no small measure fully evinced; his modes of cultivation and management are ingenious and complete, and every implement of real use, or which tends to diminish labour, is found in his farm-yard.

Much of the labour is manual, as the farms are so small, and it is performed principally with the spade and shovel.

Prices of Implements.

| | | | | £. | s. | d. |
|---------|---|---|-----|----|----|---------|
| Spade, | - | - | - | 0 | 6 | 0 |
| Shovel, | - | - | - | 0 | 2 | 6 |
| Fork, | - | - | - | 0 | 1 | 6 |
| Plough, | - | - | - | 2 | 5 | 6 |
| | | | L 2 | | | Harrow, |

* Mr. John Christy resides in the county of Down at Kircassock, just adjoining the county of Armagh, about two or three miles from Lurgan.

| | | | <i>£. s. d.</i> |
|-------------------------------------|---|---|---------------------------|
| Harrow, | - | - | 1 : 2 : 9 |
| Car with creels, and boxed, | - | - | 2 : 16 : 10 $\frac{1}{2}$ |
| Wheelbarrow, | - | - | 0 : 11 : 4 $\frac{1}{2}$ |
| Hay-rake, | - | - | 0 : 7 : 1 |
| Handles for forks, shovels, &c. &c. | | | 0 : 0 : 8 |

CHAP. VI.

INCLOSING.

SECT. 1. *Thorn fences, hedges.*

IN this well-civilized country the thorn fences are generally well taken care of, and look very neat and comfortable; the smallness of the fields, and the numerous orchards which these close thorn hedges surround, give a woody appearance, though actually but with few timber trees; this holds through the civilized part of the county, and indeed even in the mountainous district we see such improvements getting forward with more than gradual progress.

Thorn fences are of all others the most desirable, affording shade, shelter, security, and profit; but before we attempt planting, our consideration should be directed to the nature of the soil, to know what plants

plants or shrubs are best suited to it. In moist soils the black alder is found to be superior to the willow, and also makes a good fence; but it is erroneous, that it will not thrive in dry grounds also, as some writers have alledged. The alder will be very easily propagated by layers, and the willow by plants raised in the nursery, and should be put out in winter; if deferred till the spring, it will be difficult to accomplish it with success. The shoots should be two years old at least before transplanting, and, to constitute a very ornamental fence, should be put in the ground in two rows, at opposite or contrary directions, forming a diamond, or resembling the mesh of a net, and the tops secured together with plaited osiers; this makes a very beautiful inclosure, and soon becomes a very firm and strong lasting fence.

In all hedges to be planted, one matter should be kept in constant remembrance. If the hedge thrives slowly, and tends to decay when young, cutting the plants, to within an inch or two of the surface, will insure a quick and vigorous growth of shoots, which may then be trained to any shape or form. This operation ought never be delayed till the spring, by which time the buds should be shooting, and only a few leading ones suffered to remain on the stem, or they would otherwise be numerous and good for nothing. The culture of
the

the white and black thorn is so well known as to render any thing on this subject superfluous, more than advising the young plants to be carefully weeded, and new and rich earth stirred in about the roots of the quicks; but let us now consider their preservation, and the modes of renewing those which have decayed. When the young quick is not of a vigorous appearance and looks dwindling, it should be immediately removed by a fresh one from the nursery; but the great mischief or neglect, which prevents these hedges from coming to perfection, is the want of a temporary fence during their infancy, to protect them from cattle; dead thorn stuck in the ground, and made firm, is the best preservative, and will hold good during the time the quicks will be arriving to maturity and hardihood. In planting thorn fences, it would be a matter of ornament, and of great profit, to intersperse crab-thorn at proper distances, which would be so valuable for cider, and its toppings useful for many purposes; large gaps and openings in old thorn fences cannot be restored by young quicks, which will never prosper in such places; I have seen old plants dug up, and transplanted into gaps with great success; or, if the thorns at either side of the opening are long enough to meet, it is most adviseable to plash that part of the hedge; this is too frequently but a slovenly operation, and when

the

the bough is nicked and laid, it is kept down only by the weight of a crumbling sod thrown lightly on it, which every rain diminishes ; the true way to plash thorn hedges is to procure sharp pointed stakes of about two feet long, tolerably strong and pointed at the end, with a crook at the head ; this crook should confine the branch, and the stake should be malletted into the bank of the ditch to a proper depth, after which a layer of good earth should be thrown on the surface, which has been previously stirred ; the elasticity of the branch is confined thus by the stake, not by the weight of earth, and from whatever small branches the mould will cover, new shoots will appear as from layers.

Bryony is very destructive to young quicks, and soon chokes them, from the extraordinary size of its roots, the tendrils from them, and their enormous length.

Bindweed is a so closely entangling plant, as to choke the shoot after it gets up, as also are several other injurious plants which ought to be carefully weeded out.

Our limits will not allow a more minute enquiry into this subject, but the farmer should understand, that the great profit he would enjoy in early spring grass, and its preservation from the nipping frosts at this season, is produced from shelter ; and of no small consequence is the shade to his cattle in summer ;

mer; the fruit, which may be yielded from a judicious intermixture of cider trees; the wood, which is afforded for various purposes of husbandry as well as for fuel; the security of the crops from cattle or interlopers; the warmth, the neatness, and comfort, which a well inclosed farm possesses, will always command an appreciation above its value, and insures character, respect, and applause to the farmer, who has it in his occupation.

SECT. 2. *Paling.*

THIS mode of fencing is rarely met in Ireland, though so generally practised in England. Perhaps its success is enjoyed from the better civilization of the people; and so much greater is the reproach to magistrates and country gentlemen, who do not put the laws in force and protect improvements. In many parts of England, where fuel is the scarcest and dearest article in life, we see these fences stand unmolested for ages, which here would not be left a single night. The great emulation in the spirit of improvement, which now so happily prevails, will only be successful by a rigid observance of the laws against defaulters.

Park-

Park-paling is a very lasting and secure fence ; it may be objected to as not ornamental, but it produces the desired purpose of inclosure immediately, and, if offensive to the eye, it is easily planted out of sight with quick growing ever-greens, which soon become a fence in themselves, if judiciously planted.

Oak-paling is far preferable to all other kinds, and should, if possible, be procured, it being more lasting and far cheaper than any other, taking all circumstances into consideration. These pales should be cloven or sawed in thin scantlings ; if left thick, they become too heavy, and are apt to decay sooner ; and it must be observed, that the timber for this purpose should be cut in winter. I have in a preceding chapter shewn how this can be done without losing the bark.

If the paling is high or above six feet, it becomes necessary to secure it at top by a rail fashioned in a triangular shape, so as to let off the rain.

Low paling has a rail about the centre, but this receives the wet and hastens its decay, and some palings are made without any rail, but are drove deep into the ground, and placed close together ; this is an expeditious mode of fencing, and, where the soil is not stony, is made with little expence ; it has also the advantage of being either temporary or lasting, and is often used as a shelter and protection

tection for a young plantation, till it is arrived at sufficient maturity.

A well constructed paling will hold good for fifty years, and there is no fence so cheap.

SECT. 3. *Walls.*

FOR security, shelter, and duration, walls are, of course, to be preferred to all other modes of inclosing, but the great expence of these works is the best argument against their adoption.

A cheap kind of wall, which is easily reared up, and is seen in several parts of England, is termed a dyke; this consists of two slight walls of dry stone, or sometimes mortared, about three or four feet asunder at bottom, and about one at top, and five or six feet in height; the intermediate space is filled with earth; this fence, if not made with judgment, will be apt to crumble, burst, and decay, and excepting that the stones are convenient to be picked off the ground to be inclosed, they are hardly worth the cost of drawing; but dykes made of rushy sods are very durable, as they can be cut square with exactness, and laid regularly like brick-work, one sod covering the opening of the two underneath it, and projecting so as to throw off
the

the drop, and prevent bursting; this is made still more secure by digging a small ditch at either side of the dyke, which gives it additional height in proportion to the depth of the ditch, and prevents cattle from injuring it; the clay from this ditch may be thrown into the trench, which was made to procure the mould for the centre of the dyke, but the ditch cannot be made with safety till the dyke is completed; this fence will remain good for forty or fifty years; even cottage walls are formed in this manner, and are very warm. It must be observed, that this mode of fencing will not afford the same warmth or shelter to the land, which will be acquired from a hedge; the expence of this dyke* will, exclusive of the ditches, amount to about sixpence the running perch.

Dry walls judiciously built, coped or sodded at top, and dashed, are a cheap and lasting fence, but, where a gateway is left, there should be a pier built with lime-mortar and good stone. I have seen dry walls in England, through which, as the work advanced, mould and mat-rooted grass-seeds were scattered, and creeping plants sowed with them, which had soon taken root, and held the wall as strongly together as any cement, besides having a very pleasing effect.

SECT.

* For a very minute account of dyking, see Doctor Anderson's Essays on Agriculture.

SECT. 4. *Water Fences.*

No species of fencing is more useful, or necessary to be properly understood than this mode; rivers are generally excellent boundaries, and it is a matter of much moment to secure their banks from the violence of their streams in times of flooding. To prevent accidents of this kind, the surest way is to cut down the bank like a glacis, sloping towards the bottom, and to plant mat-rooted grasses thereon. An inclined paling at the top of the bank would effectually bar intruders of every description, and the earth gained in the paring would be worth the expence, as the banks of rivers are generally of a very rich loam, or vegetable mould; this is the properest kind of manure for young quicks set in the breast of ditches.

Perpendicular banks will be gradually undermined, as they resist the violence of floods; earth softened with water will naturally crumble, and be washed away, nor does it require the force of floods to sap it; its own weight brings it down. Breast-works of stone are often used in rapid streams, but these are expensive, and by no means equal to resist floods; whereas, if the flaggers, rushes, and aquatic grasses

once

once strike root, they form a firm and everlasting barrier to floods, which can by no means injure them.

SECT. 5. *Ditches.*

DITCHES, wet or dry, are seldom judiciously made; for security and cheapness, these fences are very proper; the great mistake is in forming the banks perpendicular; where water is stagnant, or of very slow course, that bank may be perpendicular, which is no higher than the surface of the field, though it would be better to have a small inclination to widen towards the top; but it is very necessary, that the other bank should be much inclined, on account of the materials of which it is composed; these are the scourings of the drain, which of course are very moist, when thrown up, but, when baked in the sun, have great durability; for this reason the bank should be raised very gradually, and left to harden, before too much of this wet stuff is heaped together, which otherwise will burst or fall down with every rain, and require continual repairs; this fence answers a two-fold purpose, being also an excellent drain for wet land, and should be kept scoured and dragged occasionally

asionally of aqueous plants and grasses, which interrupt the drains, and in still water will soon appear.

These fences may be made very ornamental by quicking the breast of the ditch, but a good vegetable mould should be the bed for the quicks; they will not thrive in the hard baked clay, of which the bottom of these ditches is composed.

SECT. 6. *Gates.*

In this fine country, 'tis a pity that so few of these ornamental and useful improvements are seen; the expence is complained of as the cause of this neglect.

Gates made of the heaviest and most valuable timber are generally the soonest destroyed; their own weight pulls them down, and the weather has great influence in swagging, splitting, and warping such timber.

The lighter the gate the better, if well put together so as to preclude the rain from the mortices and joinings; I never saw better gates than some, which had been made of lime-tree, and were full twenty years in use; light gates, of good workman-
ship

ship and well painted, will stand double the time of those made of more expensive and weighty materials.

If the farmer cannot procure other timber than oak or ash, he should make his gates in pairs, and never use such timber in long swinging gates; the clapping of these weighty bodies tears open the mortices, and quickly destroys the work.

I have seen gates of oak and ash, which were very well put together, with diagonals dove-tailed through every bar; but they did not stand one year, from the causes already assigned.

Taking a general review of the fences and modes of inclosing throughout Armagh, they are found little inferior to those in any other county, and superior to a great many. The well cultivated and populous districts, which occupy much the greater part of the county, are rendered extremely comfortable and secure in this respect.;

Sunk fences are only to be met in demesne grounds, and are well adapted for such places, and very profitable, as the ground is in use to the brink; they are peculiarly estimable, as forming the necessary bounds without obstructing prospect, interrupting the natural inclination of the surface, or interfering with its beauties.

PART II.

CHAP. VII.

AGRICULTURE.

Sola res rustica, quæ sine dubitatione proxima et quasi consanguinea sapientiæ est, tam discentibus eget quam magistris.

Columella de re rustica.

PRELIMINARY REMARKS.

THE subject of this chapter being a direct reply to the Suggestions of Enquiry, stated immediately preceding the first chapter of the work, I shall, for the satisfaction of the Dublin Society, recite the Parochial Queries, as given in the second printed detail of enquiry. By the numerals, which are subjoined to each query, is meant the reference to that section in the following or the preceding chapters,

M

where

where such query is considered and replied to. I have adopted this mode for conciseness, as the parochial enquiry in so many instances agrees with the original general printed detail; in most parts of the county the same answer will hold good throughout, and where there is any material alteration it will be remarked; it would be a tiresome tautology to reply to each query, in both details generally and parochially also, and would swell this book to a useless size.

I need not observe that the following sections of this chapter are those which are set down in the *Suggestions of Enquiry*, commencing at the head of AGRICULTURE, immediately preceding the first chapter of the work.

This mode will also have the good effect of pointing out to those gentlemen or farmers, who are well acquainted with the local state of the county, whether there are errors and omissions in reply to such queries, and will of course afford them but little trouble in correcting for a future and perfect edition, which, in such a work, can only be accomplished by joint endeavours, and never by the labours of an individual, who can do little more than point out a system for its more easy adoption, and compile and select from the many opinions necessary for its completion.

Parochial

*Parochial Queries suggested by the Dublin
Society.*

1. 'WHAT is the nature of the soil, whether flat or hilly, and how supplied with water?—*See Chap. 1. Sect. 6.*

2. Are the estates large or small, and are the proprietors resident or absentees?—*See Chap. 2. Sect. 1. and 4. Chap. 10. Sect. 11.*

3. Are there any held by perpetual leases?—*See Chap. 9. Sect. 5.*

4. Who are the proprietors of the estates?—*See Chap. 2. Sect. 4. Chap. 10. Sect. 11.*

5. What is the most common size and rent of farms?—*See Chap. 2. Sect. 3. Chap. 4. Sect. 1. and 3. Chap. 9. Sect. 1.*

6. For what term are farms usually let, or what peculiar clauses or covenants are there in their leases?—*See Chap. 2. Sect. 2. Chap. 4. Sect. 6. Chap. 9. Sect. 4. and 6.*

7. What may be the general size of fields, and how are they inclosed?—*See Chap. 9. Sect. 9.*

8. What is the common course of crops and the mode of preparation for them: and whether there are any of such crops as are not commonly cultivated in this country?—*See Chap. 7. Sect. 1. and 3.*

9. What is the usual process in breaking up grass land to tillage, and in laying down to grass?—*See Chap. 8. Sect. 7.*

10. What is the usual proportion of each kind of grain and fallow on a farm?—*See Chap. 7. Sect. 3.*

11. How much land is usually allotted to potatoes, by each farmer?—*See Chap. 7. Sect. 3.*

12. What is the average produce of each kind of grain and of potatoes?—*See Chap. 7. Sect. 2.*

13. What manures are made use of, to what crops chiefly applied, and in what quantities?—*See Chap. 1. Sect. 6. Bog and Moor, and Chap. 9. Sect. 13.*

14. Is draining practised, and how is it performed? *See Chap. 9. Sect. 12.*

15. What sort of implements are in general use, and whether threshing-mills have been erected, or any improved implements adopted? *See Chap. 5. and Chap. 7. Sect. 5.*

16. Are there any oxen employed in draught, and do they work in collars or yokes? *See Chap. 7. Sect. 4.*

17. What may be the number of working cattle in proportion to the size of the farm? *See Chap. 9. Sect. 8.*

18. What number of milch cows? *See Chap. 8. Sect. 10.*

19. Is there any artificial green food raised either for the summer or winter use of cattle, and are they housed in winter? *See Chap. 7. Sect. 7.*

20. Is red clover generally sown, and how is it applied? *See Chap. 7. Sect. 7.*

21. What proportion does the grass land bear to that under tillage, and how is it chiefly applied; whether to rearing, or feeding, or to meadow? *See Chap. 8. Sect. 1.*

22. Is any attention paid to improving the breed of black cattle, sheep, or swine, and by whom? *See Chap. 8. Sect. 2.*

23. If there be any dairy farms, of what extent are they, and what is their average produce per cow?—How is the butter disposed of? *See Chap. 8. Sect. 10.*

24. What is the mode of hay-making, and are the meadows cut early or late? *See Chap. 8. Sect. 9.*

25. Have the farmers comfortable houses, convenient offices, and stands for their corn stacks?—and have they any orchards? *See Chap. 3. Sect. 3. and Chap. 9. Sect. 2.*

26. What sort of cottages do the poor inhabit, and how much land is there commonly allotted to each? *See Chap. 3. Sect. 4. and Chap. 10. Sect. 3.*

27. What are the wages of labourers, and what rents do they pay for house, garden, potatoe land, and the grass of cows? *See Chap. 10. Sect. 4.*

28. What is the common fuel, and the expence of it? *See Chap. 10. Sect. 4.*

29. Are habits of industry, and the English language, well established or increasing among the lower classes? *See Chap. 10. Sect. 25. 26.*

30. How are tythes paid, in kind, or by composition?—and what are the usual rates of each species? *See Chap. 4. Sect. 4. and Chap. 10. Sect. 5.*

31. What manufactures are there, and to what extent are they carried on? *See Chap. 10. Sect. 14.*

32. What number of looms in the parish? *See Chap. 10. Sect. 4.*

33. Do they increase or diminish? *See Chap. 10. Sect. 14.*

34. Are there any woods or extensive plantations or hedgerows, of what kind of trees do they chiefly consist, and what is the price of timber? *See Chap. 1. Sect. 6. Woods, and Chap. 10. Sect. 17.*

35. How many acres under timber? *See Chap. 1. Sect. 2.*

36. Is there any nursery, and where? *See Chap. 10. Sect. 20.*

37. Are there mines of any kind near you, and are they worked to any effect? *See Chap. 10. Sect. 32. and Chap. 12. Sect. 1.*

38. Are there quarries of limestone or of freestone? *See Chap. 1. Sect. 7. Minerals.*

39. Are there any bogs or tracts of waste land which are capable of improvement? *See Chap. 1. Sect. 6. Bog and Moor, and Chap. 10. Sect. 22.*

40. What is the population and number of inhabitants in your parish? *See Chap. 10. Sect. 1.*

41. What number of houses? *See Chap. 10. Sect. 1.*

42. Have they increased or diminished of late? *See Chap. 10. Sect. 1.*

43. If there be any ruined towers, castles, monasteries, or other ancient buildings or remarkable places near you, what historical or traditional account is there of them? *See Chap. 10. Sect. 27.*

44. Are there any mills, and of what kind? *See Chap. 10. Sect. 16.*

45. What quantity of corn may each manufacture yearly upon an average? *See Chap. 10. Sect. 16.*

46. Are the roads in good repair? *See Chap. 10. Sect. 7.*

47. Is there a church—or glebe—, and where does the clergyman reside? *See Chap. 1. Sect. 4. and Chap. 10. Sect. 28.*

48. Are there any schools, and how endowed? *See Chap. 10. Sect. 10.*

49. Are they well attended? *See Chap. 10. Sect. 10.*

50. Is there any thing particular in the parish; or any remarks or improvements you would suggest? *See Chap. 12.*

SECT. 1. *Mode of Culture.*

THE mode of culture in this county is either with the plough and harrow, or with the spade; much land is tilled with this latter implement, as the farms are so very small, and of these little portions a sufficient spot must be assigned for the cows maintainance. This tillage is of course well performed, as ploughs, and all the improvements made thereon, tend to the important purpose of reducing the soil to a proper tilth, which no other implement but the spade has yet effectually answered. To adopt this mode of culture, in large farms, would be too tedious and expensive, but it should be considered that, where the soil is well dug, and the particles of earth properly separated, so as to afford new food for plants, the less manure will be required.

Vegetable

Vegetable or green crops impart to the soil a richness, which, with a due proportion of tilth and manual labour, will yield more abundantly than rich manures or a slovenly and ill ploughed field.

But tillage must be assisted by manures in some cases. In strong heavy land, judicious manuring will more easily render it friable, and divide and separate the clods, than any course of tillage; without this crumbling of such a soil, the roots of plants will not be able to penetrate it, and must perish: on the contrary, in light land, from its being so extremely porous, we find the same defect: manures of a binding quality must here be applied, which will have the same effect as pressure, closing the pores; hence we often find, that virtues imparted to the soil from manures are from mechanical principles rather than from any other causes; substances, which have no putrescence, will, by opening the soil, answer purposes on stiff clay, which the richest stable manure will not in the least benefit.

The mode of culture therefore in this county is judicious, as the spade, the plough, and harrow, are certainly capable of receiving great improvement.

Defects in the Plough, and remedies proposed.

The sole is not straight, and the projection has a very mischievous tendency.

The

The sole of the plough should be perfectly level, and not at all raised behind, or else a ridge of earth must remain undisturbed.

The breadth of the sole is also too much, as it requires a greater force of cattle to draw it ; this should not exceed the track sufficient for a man or horse to walk, for which nine inches will be fully adequate, and the work will go on much brisker and with greater ease.

The Scotch ploughs are shorter in the beam, but length of beam gives steadiness, though doubtless it encreases the draught. Expert ploughmen will work a Scotch plough so as to remedy its unsteadiness in our hands.

Defects in the Harrow, and remedies proposed.

It is ridiculous to suppose, that any one implement, of this description, can answer all the various purposes, for which it is required, though how seldom do we find the farmer who has an idea, that one of a second form is requisite. It will engage but little reflection to determine, that no one instrument can be adapted to the various sorts of soil, or to so many purposes as this is found necessary for.

Preparing the ground for seed and tearing the surface will require a more severe instrument, than in seed sowing, when it is to be presumed the
ground

ground is reduced to a proper tilth. For the first of these purposes, the harrow used here is too light, the teeth are too close together, by far too short, and only skim the surface; for the latter purpose, it is too heavy, and the teeth are too short, not laying the seed so deep as to preserve moisture, but exposing it to the sun which parches the surface.

Double harrows are the best calculated to obviate these defects; thin long teeth penetrate the soil, and lay the seed deeper; when yoked evenly together, they work as one harrow of twice the weight, and are very steady.

Harrows should be so constructed that no pin should follow the track of another, but each have a course of its own, and all work together.

Treble harrows are well calculated for broad-cast husbandry, and have also the superior effect of intermixing top-dressings on ploughed ground, and render the tilth finer than single or double harrows possibly can; but the instrument termed the *scuffler* answers the purpose still better than any other machine I have seen; it is now too well known and in too general use to require particular description.

SECT. 2. *Extent of culture, and of each species
of grain sowed.*

THIS can only be conjectured, and not minutely ascertained. The population we know to be great in an unprecedented degree, and we also are certain that, although much corn is exported from this county, particularly wheat, yet scarcely any is imported, the soil yielding abundance for its numerous inhabitants.

Wheat is a very general crop in the barony of Armagh, and also in O'Neiland, when the farms are larger than is necessary for the family's supply; but the great crops throughout the county are of oats. Taking the average of the county, twelve barrels of oats, of fourteen stones to the barrel, are yielded from the statute acre; eight of wheat, of twenty stones; fourteen of barley, of sixteen stones; and 100 of potatoes, of twenty stones; flax will produce ninety stones clean scutched from the acre. To produce these crops, of wheat are sown about fourteen stones, oats, twenty-four, barley sixteen, flax four bushels, and potatoes, from the various modes of seed and propagation, of no determinate quantity.

SECT.

SECT. 3. *Course of Crops.*

No system in husbandry is of so important a concern as that we are now to consider, nor is any so little understood or so grossly neglected. If the farmer reaps a crop not inferior to the usual return, he is contented, and supposes the soil has produced to the best of its ability; he only sees his mistake when a neighbour of superior judgment or management surprises him with more abundant produce, from a proper mode of cropping.

This error, which has so effectually retarded the science of agriculture, is pretty fully known and of course exploded in England, and in many parts of Ireland the change has been rapid and successful; it is to be lamented, that a county, possessing so generous a soil, should not also have fair play and indulgence; but as yet this new system is scarcely heard of here, and except by a very experimental gentry, has not been attempted. Happily the most certain conviction follows the trial, and ensures a steady adherence to a system of such superior excellence. The great principles, on which it depends, are a judicious mode of manuring, and a particular attention to removing weeds, which by the application of the hoe is accomplished, bringing

new

new earth or food to the roots of those plants we mean to cultivate. Thus advantages are gained not only in the yielding of more luxuriant crops, but in the perpetual produce of these crops, and the system of fallowing is of course entirely exploded. The introduction of a vegetable or green crop, between two corn crops, will never reduce the soil, and, by exploding fallow, a dead year's rent is saved. We very well know, that some land has produced wheat two years successively of abundant crops, and perhaps the last superior to the first; but this does not prove but that the land is the worse for such a course, and must be reduced in its strength. I, myself, have seen seven successive good corn crops taken from fresh ground, which had been highly manured with lime-stone gravel, but surely no one will say, but *that* land was unfairly dealt with, and might have had better management: the issue has proved it, for that farm, though laid down in apparent condition, and in the first season, was spread with white clover, and nice herbage, yet the following year, being dry, the grass withered, nor ever after recovered, though profusely top-dressed; when broken up again it would produce no more corn, and it is now under a nursing with the culture of green crops, which is gradually restoring it to good condition.

One certain objection to the new system, in Ireland, is the general poverty of the farmer; his stock should be proportioned to his number of acres, to ensure a sufficiency of manure; this in most cases is out of the question, through a deficiency of capital. In this county this objection does not hold, the farms are so small; in the stock of cows and calves, there is a sufficiency of manure to be acquired with proper management; but a greater attention being paid to the loom, and the farm being but a secondary consideration, makes as much against it as the other is in its favour. It must be by slow degrees, and by experience from the practice of the gentry, and ocular demonstration of its superior excellence, that any new system will be introduced in a pursuit, which is not the main dependence.

I am now to expose the erroneous course of crops practised in this county; first, potatoes on a lea stubble ploughed, and manured with dung; second, flax, with spade culture; third, oats; fourth, oats; fifth, oats; all prepared by two ploughings and two harrowings; stubble left for cow pasture: another course, first, potatoes; second, wheat, sowed immediately in the potatoe fallow, and always trenched in; third, oats; fourth, oats, as before. Wheat, one ploughing only; if the ground is very fine, after flax they sow a crop of barley with two ploughings
and

and harrowings, or oftener trench it in, and afterwards take two crops of oats. Clover is sown in small patches for summer soil, and this cannot be too strongly recommended; the practice is gaining ground, and the country shopkeepers, who sell this article, acknowledge an encreasing demand for it. Oats are frequently trenched in. No other crops are sown here. In the vegetable garden much beans are sown for food, which is very salutary, after the long use of oatmeal, the during spring season; this refreshing vegetable powerfully corrects the effects of their late heating diet.

The farmer will find his account in having cultivated a sufficiency of green food, such as turnips, tares, cabbages, &c. for the subsistence of his stock in the winter and spring, and their manure will be a constant source of treasure; thus, the grand principle of improved husbandry, in restoring to the soil as much as possible that which it has yielded, is fulfilled.

In the culture of these vegetable and revigorating crops, drilling in the seed is of course to be recommended, as well as in corn sowing; then hand or horse hoeing can follow with success, and the weeds be easily destroyed; little more than half the quantity of seed will be used to produce a superior crop on the same quantity of ground, much less labour will be required, and another material advantage

vantage which is annexed to this system is, that the most luxuriant corn crop cannot be laid down in bad weather.

In this county, fallowing is scarcely known, the farms being too small, and ground too precious, to be ever unoccupied.

The usual proportion of each kind of crops is as follows, supposing a farm of five acres, which is above the average of the tillage of the county.

| <i>Acres.</i> | | | <i>Acres.</i> | | |
|----------------|---|---------------|----------------|---|----------------|
| Potatoes | - | 1 | Potatoes | - | 1 |
| Flax | - | $\frac{1}{4}$ | Flax | - | $\frac{1}{4}$ |
| Wheat | - | $\frac{3}{4}$ | or Oats | - | $1\frac{1}{4}$ |
| Oats | - | 2 | Grass | - | 2 |
| Grass | - | 1 | | | |
| <hr/> | | | <hr/> | | |
| <i>Acres 5</i> | | | <i>Acres 5</i> | | |

Thus, a portion of the potatoe ground of the preceding season is always occupied with flax; and sometimes wheat, or barley, is sown in the remaining plot. The oat stubble affords a good quantity of grass in the winter, as it is seldom ploughed till spring. In a farm of five acres, one is usually allotted to potatoes; in eight acres, one and a half; and in ten acres, from two to three; their policy being to give up as much ground as possible to this crop, that they may prepare so much for wheat, which

which almost always succeeds the potatoes, except that small portion of the potatoe fallow, which is reserved for flax.

SECT. 4. *Use of Oxen, how harnessed.*

THESE animals are scarcely at all used here; farms are so small they would not answer, and a plough of cattle is easily made up by neighbouring farmers lending, or hiring their horses, for which they have constant employment, when not engaged in the field, as carrying their webs, yarn, &c. to market.

When any of the gentry plough with oxen, which they rarely do, the draft is from the shoulder, and they are yoked with collars.

A description of the draft from the forehead may be seen in my Statistical Survey of the county of Cavan, page 74.

SECT. 5. *Nature and use of implements of husbandry.*

THE common ill-constructed Irish plough and harrow, as I have already shewn, are in general use; much work is done with the spade, and the
N
shovel,

shovel, as they trench in most of their crops for this use; the shovel is square, and well adapted to the purpose. There is not one threshing machine in the county, and very rarely a hand winnowing machine is seen. These small farms cannot afford expensive implements, nor, where so little labour is necessary, are they requisite.

The Argyleshire plough would answer well here, and is easily worked by two horses, it being equally adapted for deep and stony soils, with a small change of apparatus, which renders it a most useful implement.



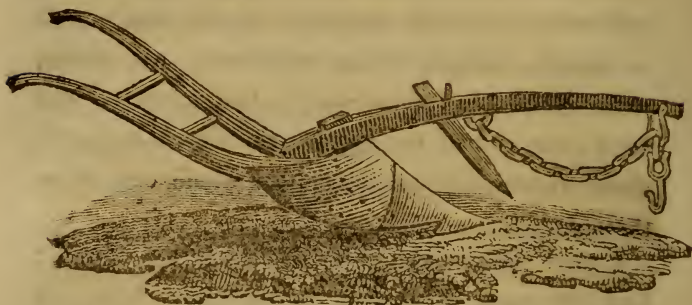
The roller is never used, except in demesne grounds, for laying down land ornamentally.

The car is very badly constructed, and so evidently so, that a bar of iron is always secured under the body to keep the sides in their places. The slats are very heavy, and morticed through the shafts, which reduce the strength of the shafts
very

very much, and in this place they frequently give way; if only the first and last slats were morticed through, and the others halved into the shafts, the car would be much stronger: on the whole, it is a clumsy, though cheap implement, not having more than about three and a half stone of iron work; the cost of the wood work, wheels included, about twenty-eight shillings; the whole cost about three pounds.

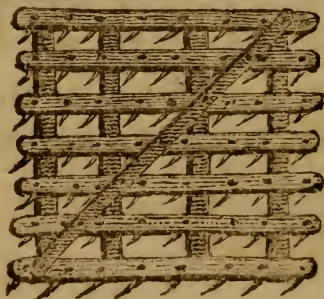
I must observe two great defects in the plough: first, the want of a plate to the side; from this defect the plough is always obstructed in the draft by the mould, which clogs this aperture, and passing through it frequently falls back: and, secondly; the mould board not being curved, the sod cannot be regularly laid down, and is frequently left so perpendicular as to fall back again; it is impossible to make a clear open furrow with this implement; indeed, excepting where the ploughman guides the horses and holds the reins, a straight furrow will never be made; a driver walking beside the cattle, his attention being taken up in setting each beast to his draft, cannot surely keep in a straight line. In irregular furrows, the crop will lose the advantage of ventilation, which is secured to it by straight and even ploughing.

The Chain, or Small's plough, represented in the annexed cut, is the most easily worked of any, in soils free of stones.



The slide car is used in some parts in the mountainous district. It is of the usual make, and shaped like a common car without wheels, sliding on the points of its shafts, which are fashioned for that purpose, and shod with iron; this car is used where the country is moist, and has not been drained: in such places, wheels would sink: it is used for carrying home potatoes, and taking out dung, which is loaded in a basket, or creel, fastened across the slats.

The annexed plan of a harrow is well calculated for gathering weeds, and cleaning land.



In

In demesnes, where improved instruments are used, they will be noticed, when we speak of improvements in the Baronial Survey, 13th chapter.

SECT. 6. *Markets for grain.*

There is not one extensive market for grain in the county, indeed little is reared for sale. His Grace, the present Primate, intends rebuilding the market-house of Armagh, and encouraging a wheat market; and since I have been in the county, I understand that at Lurgan Mr. Brownlow's spirited exertions for the same purpose have had great success.

Hitherto, merchants in the vicinity of the navigation, as at Newry and Portadown, have purchased all the extra corn of the county, except what was sold to the Armagh buyers, who had also a considerable share of the trade. The greatest clog on establishing markets for grain, is the high toll generally imposed; it would be much better policy to abolish this custom altogether; when it is taken in kind, it becomes actual robbery, as a measure of corn, when the toll was first laid on, was not of the value of one penny, and the increased value of the same quantity may from many circumstances, at times, be worth several shillings. I have known this practice to ruin a market, which had been well established.

SECT.

SECT. 7. *Use of green food in winter.*

GREEN food is no where cultivated for cattle by the peasantry, except small patches of clover, which come in early, and last a good while. The gentry are slowly engaging in these crops. In the description of the management of their demesnes, their attention to this subject will be noticed.

SECT. 8. *General observations on the modes of Agriculture, as practised in the county, with remarks on drill husbandry.*

A PROPER and judicious rotation of crops, which would ever keep the ground in good heart and vigour, is not at all considered or understood. The soil is very grateful, and yields much more abundantly than in the neighbouring counties, which perhaps is sufficient to keep the farmer in ignorance of the errors of his practice. A due or regular preparation for culture is not attended to; the following is the general routine:

Wheat

Wheat culture.

1st. *Preparation*.—Levelling the potatoe furrows, which sometimes get one harrowing, and one ploughing, if the seed is sown broadcast; if two crops of potatoes have preceded this crop, a trifling application of ashes is scattered on the surface.

2d. *Quality*.—Principally red lammas wheat, and, as this seed is always produced from potatoe ground, it degenerates in quality, such land greatly injuring the grain. In corn countries, wheat raised in a potatoe fallow is depressed two shillings per barrel in value, and a judge of this grain will easily distinguish it.

3d. *Steeping*.—This is only used here to separate the good and bad grain; the latter will always float on the surface, which is often done by winnowing; however, steeping is of more consequence, as it prepares the seed for vegetation very quickly, and is really necessary to nourish it in a dry season; but here it is not left sufficiently long in steep for this purpose.

4th. *Liming*.—The seed is always well mixed with lime previous to its being sowed, but is seldom pickled with salt, which would more effectually prevent smut or the worm.

5th. *Seed*.

5th. Seed. Quantity sown.—The acre is statute, generally through the county, and to this portion of ground two and a half or three bushels are sown. I have heard skilful agriculturists argue for a greater quantity of seed, and that, the heavier the grain is sowed, the less room there is for weeds to spring up. If the principal desideratum is to raise the largest crop from a given quantity of ground, there must be some attention likewise had to the quantity of seed also, and if twenty shillings worth of seed can be saved on an acre of ground, surely it is of the first consequence. Drill husbandry will ensure this saving, rating wheat at forty shillings the barrel of 20 stones, ten stones of seed will be sufficient: by this mode, the weeds are more easily destroyed, and the produce of wheat threshed has been considerably greater. I remember having seen a field of wheat thickly sown on the principle of keeping down weeds, and which looked very promising, but the crop was only productive in straw, and much under the average return of a middling crop in weight of grain.

6th. Time of sowing—Commences on the digging out of the potatoes, and is generally finished before Christmas; few instances of a spring crop of wheat, but even in those few there have been ample yieldings. I have seen wheat sown in the county of Kildare in August, and in the same field again in
March,

March, for experiment sake, and the latter sown crop was the best of the two, but near a month later in harvesting.

7th. Weeding and tramping.—When the crop is too rampant, they scratch it with a harrow, which they run over it a second time reversed, with a weight of stones on the top; this process would be more effectually answered by the roller, but of this implement they make no use. I have seen sheep turned in on a rank crop of wheat in spring, which had been sowed in autumn, nor were they drove off, until the field seemed as bare and brown as a fallow, and the crop was of extraordinary yielding; the soil was a very loose tilth and loam, and had been washed away from the roots of the plants by heavy rain; the tramping of the sheep caused it again to plant, to which I attribute the good effects which followed, for the crop was afterwards full as rank when it arrived to the same height; it was however later than usual by a fortnight, which is a good argument in favour of late sowing on light loamy soils.

Weeding is performed with a reaping hook, but this only cuts the weed, which is again in vigour by the reaping season; the root in the mean time imbibes as much vigour and food as the corn; such a crop cannot be said to be effectually weeded, but only clean to the eye. It is surprising that

farmers

farmers will deceive themselves in this respect; a wooden tongs, which has great power, would after rain effectually and very quickly pull up the weeds by the root; by cutting with the hook, the seeds are shed after a second growth, before the corn is cut.

8th. *Harvest*.—Early sowings will be reaped against the beginning of September, and spring sowings seldom before October. The corn is generally left in the field in small stooks, until thoroughly seasoned, and seldom stacked but in the haggard. Much more depends on the situation or rather elevation of the ground, than on the climate in difference of harvesting. Corn crops on cold elevated exposed grounds will be always from ten to fourteen days later than those, which have the advantage of shelter.

9th. *Threshing*.—There are two modes practised; one of them is termed slashing; this is done without opening the sheaf; the slasher holds the butt of the sheaf in both hands, and strikes the head of it against a bar, placed horizontally for that purpose. This is a very good method, as a sufficiency of grain is procured for any purpose very quickly, without damaging the straw, which may be again stacked in sheafs as before, and kept fresh for winter fodder, and then what grain remains is to be finally threshed out with the flail.

10th. *Produce*.—

10th. *Produce*.—Must depend on the nature of the soil, and the mode of culture; there are few wheat soils in the county but, with proper management, would average ten or twelve barrels of twenty stones per acre: the present average scarcely exceeds eight, which, at forty shillings per barrel, will leave its value at sixteen pounds sterling.

BARLEY CULTURE.

1st. *Preparation*.—When the ground has lain a year idle, it is ploughed three times, and, if not in heart, is manured with dung, lime, or ashes; the grain is sometimes sowed on a potatoe fallow, and trenched in with the shovel.

2d. *Sort*.—There is little choice as to the sort, the two or the four rowed barley being impartially or accidentally used; from their ignorance in dressing the latter kind, the malster makes a heavy deduction from the gross weight, which is an imposition.

3d. *Seed*.—The quantity of seed is about two hundred weight per acre, and in some places even three hundred weight, which is an enormous waste, and always succeeded by bad management, lodging of the crop, &c.

4th. *Time of sowing*.—This must vary according to the state of the ground; but, as the soil is sound,
and

and rain makes no great impression on it, the seed is got in generally about the beginning of April; the genial showers in this month afford a due degree of moisture for vegetation, which now is necessary. This grain is usually, and very properly, trenched in.

5th. *Weeding*.—This operation is performed, as on the wheat crop, by nipping the weed with the hook, which will soon sprout again.

6th. *Harvest*.—The general reaping of barley is in the month of September. It remains stooked in the field until dry, when it is brought home, and stacked in the haggard.

7th. *Threshing*.—Is all performed with the flail, in the common way, and paid for by day's work.

8th. *Produce*.—New well-tilled land will yield from sixteen to twenty barrels, of sixteen stones to the barrel. They seldom sow barley in this county, but in nice, well-prepared land. The average return may be fourteen barrels to the acre, in the baronies of Armagh, O'Neiland, and Lower Orior, but much less in the other districts. The average value of an acre of barley, in this county, will be about 15*l.* sterling, at one shilling per stone.

OATS CULTURE.

1st. *Preparation*.—For this hardy grain there is no regular preparation, and seldom more than one ploughing; nor is this thought of, until just before seed sowing, so that the stubbles may yield pasturage as long as possible, which they are but badly supplied with in spring. Oats sown from the lea are seldom attempted here. Potatoes mostly engross the lea crop; and the sod is better prepared by rotting for a corn crop.

They seldom have occasion to manure for this crop, the ground being in good heart after potatoes, except two or three crops have previously been taken; in this case, they manure the surface with a compost of lime, dung, clay, or ashes. In moist light ground it is trenched in; in sound warm land, sowed broadcast.

2d. *Sort*.—In their best land they sow white Poland oats, and white Holland; in the mountainous district, black oats, and sometimes white oats on limed ground. When white oats are sown on the mountainous parts, which have not been previously manured and drained, they will degenerate into a black grain in two or three seasons. This grain will not make so bright meal, and has a much greater hull, and quantity of offal. The white oats are the earli-
liest

liest ripe; the white Holland come in sooner than the Polish; the black oats have the advantage over the other two kinds, in not easily shedding, if cut before they are fully ripe, and left to ripen in the stook.

3d. *Seed*.—About twenty-two stone to the English, or twenty-eight to the plantation acre.

4th. *Time of sowing*.—Is generally a month or five weeks before barley, or as early in the spring as they can be got in.

5th. *Weeding*.—In every respect the same as mentioned in the wheat and barley culture.

6th. *Harvest*.—This seldom begins before the second or third week in September; it is earliest in places where there is a limestone soil. A statute acre of oats may be cut by five men, and bound by as many women. This grain also remains in stooks in the field; and what quantity the farmer may judge is over his probable demand, is frequently sold in the stook, and rates from 1s. to 1s. 4d. per stook. This grain is kept longer on the ledge than any other; and it is said that it improves in quality by this mode, after it is perfectly dry.

7th. *Threshing*.—All done by the flail, and frequently paid for by task-work. A good thresher will earn sixteen-pence per day.

8th. *Produce*.—Frequently, on well-tilled good land, the produce will exceed twenty barrels of fourteen

teen stones. The average of the county is considered about fourteen barrels to the acre; but I suppose this calculation to be short of the actual return. The average value of an acre of oats may be about 8*l.* per acre, at ten-pence per stone.

9th. *Manufacture*.—The grain, being ground into meal by water or wind-mills, is divided into two kinds, the coarse, and fine; the former for boiling with water into that strengthening dish called stir-about, which is commonly used at breakfast. This dish is, however, declining, as manufactures are increasing, and the people more wealthy; they are, of course, more inclined to indulge in tea breakfast, as is usual with all tradesfolk. In this case the fine meal is kneaded with water into thin cakes of bread, baked on the griddle, and eaten with butter.

Oatmeal is also used at the dinner meal, and is often boiled with meat, or stewed with vegetables, which correct the humours stimulated by this strong and heating diet. This the people are sensible of, and their little gardens are well stocked with vegetables, particularly beans, cabbage, and sallad.

POTATOE CULTURE.

1st. *Preparation*.—The old lazy-bed way is the usual mode of planting; the dung being spread on the surface, the breadth of the intended ridge; the seed

seed is laid thereon, and a trench dug at either side, the clay from which is thrown upon the seed ; the culture is just the same, whether on grass ground or stubble, or in high or low land, but that grass land is rich enough to require no manure. Judicious farmers will plough up their stubble fields for potatoe culture before seed time, which will well repay the expence.

It has been observed that, however expensive the lazy-bed mode is, yet, in no instance, are crops produced of better quality, though they may be exceeded in quantity.

Several farmers now begin to drill in their potatoes, which they acknowledge to be a less expensive and more abundant mode.

The various methods of raising the potatoes from scoops, cuttings, and sets, have been severally tried with various success, but the old method is in most estimation.

Potatoes are twice covered with the spade, and twice when sowed in drills, but the latter mode, in this respect, has the advantage ; the plough without mould boards passes up the centre of the furrow and loosens the soil, the mould boards are then set on, and at both sides the loosened soil is thrown up. In the lazy-bed way, it will require twenty men to plant an Irish acre, and but three men and two horses to sow it in drills, or the value of the labour

labour of five men altogether; the saving is manifest of fifteen men's labour, and of manure at least one half.

2d.—*Seed—quantity sown.* If the lazy-bed way is adopted, about 200 stones of fourteen pounds are sowed to the Irish acre; in the drill husbandry, rather less than half that quantity. Let the advantages of the drill in the several stages be compared with the lazy-bed process, and the profit in every instance is in favour of the former, full two to one.

3d.—*Sort.*—The potatoe in general use here, is the early white, the black, and the Cork-red; but, though the land is unquestionably good, there must be a defect somewhere, either in the seed or culture, as the quality is in general inferior and of a diminutive size. In Munster, such potatoes would not be stored for the food of man; that superior potatoe, *the apple*, which is so little cultivated here, is there in general use, and, after the early potatoe is exhausted, excels all other kinds for holding good the longest time of any other species, for dryness, and for possessing more farina and considerably more weight than any other kind. The English red potatoe is coming into estimation in this country; the produce is superior to that of any other kind in poor land, but this potatoe is glutinous, and

o

grows

grows very strong and rank after three or four months.

The black potatoe is fruitful, and, I think, keeps better than any other kind, in general use, in this country.

The apple potatoe requires both good ground, and rich manure, but it will well repay all expence.

4th.—Time of planting.—From March to the latter end of May, in uplands, and from May till the middle of June, in moist or boggy soils. In this kind of soil, potatoes are often planted to change the seed, which, from long sowing in upland, will degenerate, and this effectually answers the purpose.

5th.—Digging out.—From the latter end of October until the beginning of December, those sowed in the lazy-bed way are taken out with the spade, the drilled potatoes with the plough; the labour of forty men is required for digging out one acre; for the latter, two horses, the ploughman, driver, the pickers, and four men, to break and toss the clay, and separate it from the potatoes with their spades or forks. The saving in this mode is as great as in planting, as six men and two horses accomplish the work of forty men.

6th. Preserving.—This is more commonly by heaping them into the cabin, than by placing them in pits in the field; it is a very slovenly method
and

and often occupies the room of two looms, always crowding the house. I cannot learn their reason for this practice, as their ground is so sound and dry they could be as well preserved in pits, here, as in any other part of Ireland.

General hints on potatoe culture.

As potatoes are liable to be nipped by frosts, this can be prevented by covering the ridge with turf-mould, for the depth of an inch or two, and besides it is a good manure to the soil.

Scooping potatoes will save about one third of the seed, but they have a less chance of succeeding in a dry season than cuttings.

In planting shoots, let a small portion of the skin of the potatoe be cut off with the eye, from which the shoot springs, and the crop will be considerably earlier.

We are told, that after stripping the young potatoes from the roots of the stalks, early in the season, and earthing them up, a second crop, and very abundant, has been yielded in the usual time.

Shoots ought never to be taken from small or dwarfish potatoes, but from the largest size, and those which are the grossest are to be preferred, as possessing most vigour.

Apple potatoes, for a keeping crop, ought to be planted late, not before the latter end of May; the crop will be more luxuriant, and the quality superior; the rains of July, which is generally a wet month, will serve it very much.

To early crops the rain is injurious about midsummer, as the potatoe is past the period of benefiting from moisture, and, if a dry season precedes July, they are stunted with drought.

Scoops have a better chance in a moist than a dry soil; however, they are only to be recommended in times of scarcity; there is no doubt of their success in a proper soil.

Turf-bogs are remarkable for yielding excellent crops of potatoes, and the soil good for preserving them, for which reason a potatoe pit lined with turf is esteemed preferable to straw; the surface sod, which has the soft grass and herbage well withered and dried, is the best for this purpose.

The earliest crops will be produced from shoots, and even these are forced by keeping the potatoe warm and dry all the winter; they may be planted in February, if the season is open, and put down with a setting stick in a soft dry soil, without injuring the shoot, so deep as to leave the top about one inch below the surface, which should be covered with turf mould to protect it from frost, as

it

it springs very quickly; great care should be taken in carrying the shoots to the field, that they are not broken, or they would be good for nothing.

The manure of ashes for potatoes should be applied, when the ashes are most caustic; ashes made the preceding year lose much of their substance and virtue.

An acre of potatoes, well cultivated, will average, at 3*d.* per stone, a return equal to 25*l.*

FLAX CULTURE.

1*st.* *Preparation.*—Flax is invariably sown on potatoe ground; the tillage land being almost entirely in the hands of small farmers, they are wedded to this practice; they cultivate the plot carefully with the spade, but they omit rolling it, which is very necessary. Flax ground in this county is generally ploughed twice before Christmas, and once before the seed is put in.

2*d.* *Sort.*—The flax-seed used here is of two sorts, the American, and Dutch; the latter is dearer, but the produce considerably greater in a heavy cold soil.

The produce of American seed, in the same kind of the soil, will be a third less, but it thrives better in a light soil.

3d. *Seed—quantity sowed.*—On the average, about thirty gallons of seed to the acre, which will cost from two and a half to three guineas.

4th. *Time of sowing.*—Generally about Easter, or earlier, if the season admits of it.

5th. *Weeding.*—This is well performed, and very carefully attended to.

6th. *Harvest.*—As little or no flax-seed is saved here, it is pulled when green, or just before it turns colour. It is supposed, by this practice, that the flax will make much finer yarn; but this, I apprehend, is a mistake; as the finest Flanders laces are made from flax, which previously had yielded the seed.

This subject, and the various other processes of watering, grassing, heckling, &c., I have minutely considered in the Survey of the County of Monaghan, to which the reader is referred.

Crops not commonly cultivated to any extent.

Under this head we may rate those which, in improved husbandry, are termed vegetable crops. I shall commence with soiling grasses; that, which is cultivated to a greater extent than any other of this class, is RED CLOVER. It is, however, to be lamented, that

we

we see such trifling patches of it; much too small, in proportion even to the very limited size of the farms; although the supply of milk depends so much on a due proportion of this valuable plant. The culture of clover is simple; it will thrive in all but wet soils, whether loam, gravel, or clay. The best crops are produced from a rich, mellow soil, kept in due tilth, which should be carefully picked of stones, and ought to be lightly rolled before the seed is sown. In sowing the seed, it should be evenly distributed on the surface; and a light harrowing will be sufficient, as it thrives with a very small sprinkling of mould over it; perhaps not more than an inch of soil is sufficient, or what will secure it from the birds. It should not be sowed until the spring has set in mild and genial, when it is intended to be left for a late crop, and should be carefully weeded. The quantity to the English acre, when it is sowed for grass, should not be less than twenty pounds; and some contend it cannot be sown too thick, as the plants of grasses shelter each other by their closeness, and better retain the dews and moisture so necessary for their nutriment; besides, the more slender the stalk, the fitter it is for cattle, and preferred by them to strong coarse stems. Clover requires shelter when getting up; for which reason, the crop is more vigorous when sowed with grain, than by itself.

White

White clover is sown but by a few gentry, in laying down demesne land in sheep-walk, and this but rarely. The culture of this plant is, in general, similar to that of red clover, but it is much more lasting and valuable to ground newly laid down. It thrives in a light, tilly, warm soil. Lime, or limestone-gravel, generally produces this fine herbage naturally, as does a burnt surface, in almost all soils; and it will flourish as long as the calcareous matter holds good.

Rye, or *Ray-grass*, is not at all cultivated here. When the gentry appropriate more of their demesne ground to sheep-walk, they will find the want of it, and become better acquainted with this valuable grass. It is particularly nutritious for ewes and lambs, coming in nearly a month earlier in the spring than other grasses.

Rye-grass, sown with red clover, makes a fine green soiling early in the season, and may a second time be cut, and yield a crop of hay, if the seed has not previously been forward in the head.

Rye-grass gives the earliest meadowing, and the hay is very strong, and preferable for horses. The seed of this plant, when threshed from the hay, will produce to the value of 3*l.* sterling per acre.

The other grasses, not cultivated here, are sainfoin, lucerne, timothy-grass, burnet, which are so valuable for soiling, and rank as vegetable crops.

There

There are but slight grounds to expect, that these grasses will be cultivated in this county, which are yet so rarely seen in any of the best improved farming parts of Ireland. I shall, therefore, leave the modes of their culture to some more experienced author.

Having spoken of grasses of this class, I shall proceed to other crops under the same denomination, and used as green food, which are but rarely cultivated here; but it is hoped, that the gentry will soon avail themselves of their great value, and become sensible of their importance, both to cattle, and also to the improvement of the soil. These are turnips, rape, cabbages, and vetches, or tares.

I shall commence with

TURNIPS.

1st. *Preparation.*--Few soils, when judiciously tilled, but will produce this valuable plant. It is said to thrive best in a gravelly soil. I have seen the finest crops on cut-out bog, which had been levelled, drained, burnt, and graveled with a rich loamy limestone. To produce this plant to perfection, the ground must be brought to a very fine tilth by successive harrowings, and exposed to some months fallow in the winter, as the frost has the best effect in meliorating and pulverizing the soil. The longer it can be left in this state, previously to seed-sowing, the better, except

except weeds sprout, which should be well harrowed up and burned. The scuffler should now be used, to incorporate, or mix with the soil, the manure of lime or ashes, as may be judged expedient; no implement can more effectually answer this purpose.

But turnips may also be successfully raised, without leaving the ground idle in fallow. Here we are to presume it is in previous good tilth, having been under the culture of tares or vetches in the winter, which when cleared off, the ground should be well ploughed, cross-ploughed, and harrowed, and the weeds gathered with the scutch-rake, heaped together, burned, and the ashes mixed into the surface with the scuffler, on which the seed may be sown broadcast, or with the drilling machine, which is the better mode. By these means two green crops are raised, on the same plot, in one year; and both of these very enriching, and meliorating to the soil, for any culture.

2d. *Sort.*—The Swedish turnip, the purple, and the white oval turnip, are all excellent yielders. The purple is most certain, as lying deeper in the soil, and less liable to be injured by frost; but the green turnip grows to the largest size.

3d. *Seed—quantity sown.*—In broad-cast, they seldom sow less than three pounds to the acre; but half that quantity will give a better crop, with drill husbandry.

4th.

4th. *Time of sowing.*—This is generally determined by the time the farmer calculates he will have occasion for this root for his cattle. Early sowings are in the month of June, and are not calculated to last longer than the winter months, as early turnips are too apt to run to seed; but seed, sown in a month or five weeks after, will be preserved good considerably longer, though the crops will not generally be so productive. The purple turnip should be the latest crop. A slight rolling will be necessary after the seed is sown.

5th. *Culture whilst growing.*—A careful attention to hoeing is particularly necessary, as the fresh earth about the roots gives a great supply of nourishment, and they swell very much after this operation. If the seed has been drilled in, they are easily hoed with the hand or horse hoe, at quarter the expence and trouble in broad-cast sowing. When the turnips are too thick and close, which is seen at the first hoeing, or just when they put out four or five leaves, the hoer draws the superficial plants, which are thrown in the drill alley, along with the weeds, or in the furrow in broad-cast husbandry. Children can be taught to hoe with as much expedition as men, and at an evident saving; but, where the horse-hoe can be introduced, it will be by far cheaper than any other mode.

6th.

6th. *Preserving*.—Turnips may be preserved in pits, like as potatoes, having been previously exposed to the weather a few days after taking out of the ground, and the pit well lined with straw, which mode I have seen effectually answer; or they may be preserved in a close house, with straw, after the following manner. A bed of straw being laid on the centre of the floor, which is free from damp, a layer of turnips may be spread thereon, and alternately a layer of straw; the turnips should be placed in layers, of about eighteen inches or two feet thick, with so much of the straw projecting from the turnips, as will be sufficient to fold over, confine, and secure them from bulging out; this to be continued in every layer, always reducing its area, so that the last one will end in a conical shape, or come to a point. This mode is generally adopted in England, and has been recommended in the Bath Agricultural Papers. The heap may be made of any size, which the walls of the house will admit, leaving a free passage around the heap between it and the walls.

7th. *Produce and uses*.—The produce of an acre of turnips is rated from forty to fifty tons weight, after good culture; medium value four to five guineas.

Their uses in feeding sheep and black cattle are so well known, as to require no description; the ordure of these animals, after this feeding, is much
more

more valuable as a manure : indeed the very culture of the crop imparts a high degree of vigour to the soil, and is an excellent and profitable substitute for fallow.

RAPE.

This plant may be cultivated for two purposes, as green food for cattle, or for the seed, from which oil is extracted for various branches of manufacture and for lamp light.

As green food, it is wholesome, and very greedily eaten by cattle ; it is seldom used until the turnips are consumed, and thus a constant succession of green food is kept up. For this purpose, transplanted rape will produce the best crop, which must be raised in the seed-bed, brought to a very fine tilth, and well manured. The ground, into which it should be transplanted, should be ploughed in drills, and rich dung laid in the furrows, which are then to be closed up with the plough, thus changing the ridge into the furrows. The plants are sometimes laid in the dung, before the furrow is closed, and fixed upright by a person following the plough ; or they are set with a planting stick, as cabbages are planted in gardens. A due attention must be had to earth up the transplanted rape with the horse-hoe, or by passing a plough up the furrows,

furrows, and then setting on a double mould-board, and earthing up at both sides in the one journey.— This crop also enriches the soil, prepares it for any culture, and answers all the purposes of a fallow. The leaves are in spring in their full vigour, and should be stripped off the stalk, and carted home to the cattle. The new spring of delicate sprouts, which will afterwards shoot out, may be used by turning in sheep, previously to ploughing up the stalks. I have seen fifteen shillings per acre given for the run of a rape field in this state, after having yielded its winter supply : a numerous flock of sheep, I think six score, were turned in, and fully subsisted on about six acres of ground for four weeks, and in that short time were brought more quickly into condition than could possibly be expected.

Rape culture for the seed may be broadcast, or in drills, but the latter husbandry is superior ; in this, as I believe in every other instance, a great attention should be paid to the time of its ripening, as it soon sheds ; the whole field generally ripens in one day, and should be then cut, for which reason, in the countries where they cultivate this plant, a sufficient number of hands is procured to cut it all in one day ; this is voluntarily and without price contributed to by all the neighbouring farmers and labourers, who generally thresh the grain on the stubbles,

stubbles, with sheets spread underneath, the moment it is cut, as it would not bear the carriage home to the haggard, but would shed on the way. This is always a feasting day at the expence of the proprietor, but no wages are paid.

Soap-boilers purchase the ashes of the straw, for which they pay generally at the rate of two shillings and six pence, or three shillings, for every barrel of seed which the crop has yielded, seventeen stones, of fourteen pounds each, making a barrel.

This crop thrives well in a wet season in upland newly broken, after a crop of potatoes, and is extremely luxuriant in boggy soils, in a dry season, which have been well drained.

Rape seed for oil has hitherto, of late years, kept up a good price, average one guinea and a half per barrel. The crop is precarious according to the season, but the average may be ten pounds per acre; some acres frequently yield three times that sum.

By erecting a rape-mill for the manufacture of the oil, and by introducing the mode of culture, and the consequent profit of the crop, there would be some encouragement to engage in this culture; the want of a market for the seed is the only objection, that can ever be raised against it: yet many farmers in Munster will send it thirty or forty miles to market, and no crop will pay so well.

No

No manufacture require less expence, when the mill-work is complete; the rape-cake will pay all cost, and leave a valuable surplus, independent of the value of the oil; one barrel of seed will, on an average, yield eleven gallons of oil; the average price is about five shillings per gallon, when the cost of the seed is one guinea and a half per barrel, which is an enormous profit, as the rape-cake more than pays the expence of manufacture, it being rated at about four shillings per hundred weight, either for the purpose of manure or feeding cattle. Notwithstanding the encreasing culture of this plant for oil, and the many oil-mills, which of late years have been erected in the south of Ireland particularly, still the price holds up, and rather gradually encreases.

The machinery of an oil-mill is very ingenious, and rather expensive; a complete mill will not be fitted up for less than 1000*l.* exclusive of storage; only one man and a boy are required in the manufacture, but there must be a helper or two, to turn the raw seed on the lofts according to the quantity of stock. This seed must be most carefully and frequently turned, when it is new, and, in that state, it will often heat in the carriage of a few hours journey in the sacks. It should never be left in the sacks, but, if it shews any indication of heating, should be constantly turned; four, five,

or

or six times a day will often be necessary, as heating will lessen its value by several shillings in the barrel; after a month or two, it will not require turning above once in every three or four weeks.

CABBAGES.

The culture of this plant, for food for cattle, may be successfully practised, under the direction for rape culture.

If the seed is sowed with the drill machine, the superabundant plants may be drawn with the weeds; but transplanted cabbages, on ground well manured with dung, always ensure good crops. Quantity of seed sown, from sixteen to twenty pounds the statute acre. When cabbage-plants are reared for the supply of gardens, and sold in the markets, the profit is oftentimes from 30%. to 100%. value per acre.

18th acre.

CARROTS AND PARSNIPS,

Are excellent food for cattle. To bring these crops to perfection, the ground should be ploughed, and dug very deep; having naturally a loose open soil, reduced to a fine tilth, and well cleared of stones.

I have seen fine crops of carrots, which had been drilled in, produce from two hundred to six hundred bushels per statute acre; medium, four hundred.

In a few days hogs will fatten on carrots, and the fat becomes firm and transparent. They are also excellent food for horses, and very grateful to that animal.

POTATOES,

As intended for feeding cattle, are also a profitable crop. Their culture has been already spoken of. But we shall conclude the subject of green food for cattle with some remarks on the crops of tares and vetches, of no less importance than any of the preceding.

TARES AND VETCHES.

The great value of this crop is, providing food for a large stock of cattle in the hands of a farmer, who is principally engaged in tillage; thus ensuring an ample supply of manure for his crops. Indeed this is the great superiority, which green crops in general have, and in preparing the ground for corn crops without fallowing; which none of them so fully answers every purpose of, as do tares or vetches. They so effectually enrich the soil, that they are said to leave the field, in which they have been sown, a rank dunghill. The process of their culture is as follows.

1st. *Preparation.*

1st. *Preparation*.—Plough the field in high ridges, rounded at top, and rather convexed, so as the moisture may easily flow off; on which sow the seed, which may be covered with the harrow, or lightly with the shovel, as barley is trenched. Farmers generally choose their poorest soils for this culture, which it is sure to enrich; and the field must be very poor indeed, if they give it a previous manuring. Vetches may be sown with great success with the drilling machine.

2d. *Sort*.—The sort most generally in use is the winter vetch; the other is the spring vetch. There is, however, a great variety of this species, but those two sorts only are sown. The former kind defies the severity of the season, which the latter is liable to be greatly injured by, and should be steeped before sowing, if the weather is very dry, which will very much forward its vegetation.

3d. & 4th. *Seed (quantity sown)*, and *Time of sowing*.—About twelve stone per statute acre, when the crop is intended for soiling early in the spring; but the quantity varies according to the time of sowing, or rather the time when it is intended for use. Winter vetches, which are used as soil, should, if sown in August or September, have eight stone to the statute acre, but be considerably decreased in quantity as the sowing is deferred, and should be all put in the ground against the latter end of October.

Rich soils will not require as much seed as poor land ; nor will a crop, sown for seed, require by two or three stone so much, as that intended for soiling. I have seen, at the Right Hon. John Foster's, at Collon, a parcel of ground laid out for a regular succession, which was cultivated in a very superior style. Judicious farmers should sow it at several periods, to ensure this succession. Spring vetches are sown for hay in February and March.

5th. *Culture*.—Weeding should be carefully attended to, and fully drawn up, so as to leave nothing to interrupt the scythe. For this purpose, large stones should be picked off the ground, before the crop rises.

6th. *Harvesting*.—The winter vetch comes in two or three weeks earlier than the spring vetch. They are fit for use, as soil, when the blossom appears ; but, if intended for hay, they should not be cut until the pod is formed, and just before the blossom drops.

The scythe should be shorter than usual for cutting them, and it will be found much more convenient than the long meadow scythe. The time of cutting ought to be particularly attended to, as, if they are let to grow too strong, and the stalks too large, cattle will refuse them. Perhaps the best mode is to use every crop for both the purposes of soiling and of hay ; giving the crop, whilst in blossom,

som, to the cattle, and to make what remains, after the pod is formed, into hay. By this mode none will be wasted. Vetches, however, require good weather, when mowed, to insure their making good hay; for, if they are made up in wet weather, they are liable to rot. When cut, and well dried, they are made up into sheaves, like corn, and should be drawn home before they receive wet, which occasions their shedding the seed. Wet will have this same effect on them at all times after cutting, for which reason they should be carefully covered, or kept in an office for that purpose.

7th. *Produce*.—The weight of hay from an English acre may be from two and a half to three tons, on poor land; the value is no ways inferior to that of the best meadow hay, on rich soils, and the produce is more than trebled. The seed of an acre, when threshed from the straw, will generally yield ten barrels; average value, from thirty to forty shillings per barrel.

8th. *Appropriation*.—Horses greedily eat vetches, either as soil, or hay; in the latter stage it is far preferable, and better food for this animal. Black cattle and sheep greatly delight in this soil, and fatten very rapidly. Stock should be housed on this, and, indeed, on all vegetable crops, which considerably encreases and enriches their dung. Some farmers feed their stock on the land; this should
never

never be done but in folds, as so much is destroyed by tramping. The seed, when saved, should be for a length of time exposed to the sun and air, and frequently turned, before it should be stored. The strong vetch, which black cattle will refuse, should be picked out of their soiling, and given to horses.

PEAS.

This crop thrives in a light gravelly soil, is seldom used as green food, but, when ripe, is threshed, and the straw made into dung, or burned for manure. Two kinds of this pulse are in use, the white, and the grey; the former for culinary purposes, when split; the latter is kiln-dried, and ground up for meal, which is a very insipid and unwholesome food, except when mixed with equal parts of wheat-meal, which renders it more nutritious, and less heating. It is frequently given, in the straw and pod, to horses for food, and admirably agrees with them.

Pigeons delight in this food; and they, who rear those birds for market, well know its value. The price of peas is generally from twenty to thirty shillings per barrel, of twenty stone. Medium produce, seven barrels per acre.

BEANS,

BEANS,

May be sown either after a corn or a green crop. They are most perfectly sown in drills, as being more easily hoed by the hand or horse hoe. When split, and given to horses, they become the very best and most strengthening food. They are cultivated in this county in small patches only, and all for the food of man, and are generally boiled, and meshed with oatmeal, milk, butter, and pepper. This dish is provincially called *stulk*, is wholesome, and very palatable.

Beans thrive in a deep, moist soil. They should be drilled or sowed in furrows, to admit a free circulation of air, as they continue a long time growing; this is extremely necessary, as, otherwise, much of the crop is smothered and rotted, and the pods but poorly filled.

Early in the year, after the heavy frosts, the ground for beans, which has been previously ploughed, and left under fallow, should be harrowed finely, and the seed sown. If not drilled in, they should be trenched, the mould beaten with the back of the shovel, until reduced to a fine tilth, and the seed covered pretty deep, to six or seven inches. They should be sown in dry weather, and the plants either hand or horse hoed.

Beans

Beans are preserved in the pods, by tying the stalks in the fork of a tree, and thatching them over with straw, when only saved for seed in the garden ; but, when in large quantities, they are stacked in the pods in the haggard, and thatched carefully.

HEMP.

Of the culture of this most useful plant we have very little knowledge, though, in many respects, it is nearly similar to flax. For a very minute account of its culture, management, and uses, the reader is referred to the Statistical Survey of the County of Cavan by the author.

CHAPTER VIII.

PASTURE.

SECT. 1. *Nature of it.*

THE pasturage of this county is naturally sweet and wholesome. The limestone furnishes much earlier grass than the clay soils; however, in summer, these latter soils yield grasses more abundantly, and better resist a burning sun, and they are more productive for the pail; but there is very little systematic arrangement for grass. The numerous small farmers never lay down their grounds with grass-seeds; stubbles supply their winter pasture; and small patches of clover, with the casual herbage of the ditches and road side, afford a scanty subsistence in summer, together with potatoe-tops, and the gleanings of their little gardens.

When the farmer holds land on the banks of rivers, or in low moist situations, it is mostly employed

ployed for dairy purposes. In the valleys, which are numerous, in consequence of the great undulation of the surface, rich grasses are natural to the soil ; these spots are chosen for meadow land. A little meadow land is considered a great prize, and, where it can be afforded on the small farm, it is to the great prejudice of the cow in the summer season.

Very fine natural grasses spring on the edges of turf-bog, particularly on that part which has been burned to raise a supply of manure. But, although this great benefit is pointed out by nature, yet few take advantage of it, when so little labour would, in such districts, afford a great profit, and an ample growth of grass. In the hands of spirited and experienced reclaimers of turf-bog, this kind of land soon becomes the most valuable meadow ; and they depend on it for their supply of hay, with more certainty than in upland meadows.

In the mountainous parts the pasturage is short and prolific, but not fattening ; although grown cattle will not improve, they, however, do not decline on it ; it rather furnishes a good belly-full, than it imparts much nutriment, except to young cattle, which thrive well on it.

The proportion of grass lands to tillage, in the populous places, and best soils, is rather less than as one to five ; but in the mountainous districts the reverse is under the proportion. Young cattle chiefly
occupy

occupy the grass of the latter district, and milch cows the meadow of the former. There is so small a share of the lands (excepting in demesnes) appropriated to feeding heavy stock, that it cannot be taken into account; and as to sheep-walk, that is entirely confined to the parks of the gentry; so that there is no regular trade in the county of fattening black cattle or sheep for market.

But what good pasturage can there be expected to be produced in a country, where every field of grass, in the tillage district, is that, which is no longer capable of producing corn, and let out wild, without culture, grass seeds, or any kind of manure? Yet such is too often the abuse of this excellent soil.

In the many places I have seen in this county, the soil, if judiciously cultivated, would be equal to sustain twice the quantity of stock, which now barely have an existence in it.

In five-acre farms, they endeavour to proportion grass to tillage, as one and a half to five; of this two-thirds are pasturage, and the remaining third is meadow.

The prices of grazing, in the mountainous districts, are very low. This extensive range is generally set, without a previous admeasurement, at a small bulk rent. The boundaries of estates are not well defined here, nor is there much trouble taken to have them ascertained.

SECT. 2. *Breed of cattle—how far improved?*

IN the black cattle, the defects, and also the beauties, of the native breed are occasionally seen. Hitherto there have been but small pains taken to improve them; very few of the gentry have yet entered with spirit into this desirable pursuit. Amongst the foremost of these few is Mr. Brownlow, of Lurgan. But in the twelfth and thirteenth chapters this subject will again be necessarily considered.

SECT. 3. *How far capable of further improvement?*

PERHAPS, as milch cattle, they require no improvement, having already a decided superiority in this respect; all they want is a sufficiency of pasturage. The same reason may, perhaps, truly apply why the breed is here rather small, and insufficient in bone, for the purposes of draught; and, indeed, is proved in those sent from hence to Fermanagh county, where, as the grass is rich and much more abundant, they soon grow to a large size. In general they are fine in the neck and horn, but they require

quire a good deal of food to keep them in condition. This has been remarked by some gentlemen, who have had this stock on the best pastures.

SECT. 4. *Markets or Fairs for them.*

IN the second section of the tenth chapter, the market-towns will be particularly noticed, in the table of towns and villages. Generally at fairs, the traffic for the interior of the country consists in selling out strippers, and buying in springers, or newly calved cows; and there is much dealing in horses of every description.

Young horses and black cattle are purchased for the mountainous districts; and much of this stock, brought to fairs, have been reared on these lands, and sold by one farmer to another. Fermanagh graziers are ready purchasers for cattle fit for feeding. Stock to a considerable amount is purchased by jobbers, who drive them from fair to fair, or purchase them for exportation to Scotland, making out a very lucrative trade. Indeed to the dealing at fairs, amongst jobbers, we may very much attribute the great rise on cattle of late years. The sale of pigs is very great, both alive and slaughtered, for exportation; but that of sheep is inconsiderable.

Alphabetical

Alphabetical List of the Fairs of this County.

1. Acton, (May 4), (Dec. 12). Custom free.
2. Armagh, (March 28), (May 20), (July 10), (Aug. 12),
(Oct. 4), (Nov. 1).
3. Baleek, (Feb. 3), (May 3), (Aug. 3), (Nov. 4).
4. Ballybought, (March 22), (June 21), (Sept. 20),
(Nov. 22).
5. Ballyneglera, (Jan. 5), (June 8), (Aug. 12), (Oct. 3),
(Nov. 8), Dec. 11).
6. Charlemont, (May 12), (Aug. 16), (Nov. 12).
7. Clare, (May 12).
8. Clough, (May 3), (Dec. 6).
9. Coollaville, (April 26, two days), (Oct. 26, two days).
10. Cross, (May 30), (Aug. 5), (Sept. 5), (Dec. 27).
11. Fork-hill, (May 2), (Aug. 1), (Sept. 29), (Dec. 8).
12. Hamilton's Bawn, (May 26), (Nov. 26).
13. Johnston's-bridge, (May 25), (July 25), (Sept. 25),
(Nov. 25).
14. Jonesborough, (June 4), (Aug. 15), (Oct. 21), (Dec. 21).
15. Keady, (Jan. 17), (Feb. 13), (March 17), (April 4),
(June 4), (July 5), (Aug. 15), (Oct. 14), (Nov. 17).
16. Killyleagh, (the last Friday in each month).
17. Legacurry, (Feb. 9), (July 16), (Oct. 15).
18. Loughgall, (Jan. 1), (May 5), (July 1), (Sept. 5),
(Dec. 30).
19. Lurgan, (Aug. 5, two days), (Nov. 22, two days).
20. Maghery, (April 30), (June 24), (Oct. 31).
21. Market-hill, (May 5), (June 22), (Oct. 26).
22. Middleton, (Feb. 5), (May 4), (Aug. 8), (Sept. 12),
(Nov. 4), (Dec. 28).

23. Newtown-

23. Newtown-Hamilton, (May 7), (Nov. 7).
24. Poyntz's-pass, (Jan. 4), (Feb. 1), (March 1), (April 5),
(May 3), (June 7), (July 9), (Aug. 2), (Sept. 4),
(Oct. 4), (Nov. 1), (Dec. 6).
25. Portadown, (March 28), (April 14), (May 16), (June
2), (Nov. 13).
26. Portnorris, (Feb. 12), (May 14), (July 16), (Oct. 10).
27. Surgowney, (Jan. 12), (May 14).
28. Tanderagee, (July 5), (Nov. 5).
29. Tullyvallen, (May 6), (Nov. 6).
30. Tuscan's-pass, (March 28), (April 26), (Nov. 8).

SECT. 5. *General Prices.*

MILCH cows, bought in from eight to twelve guineas; medium price, 10*l*.

Dry cows, sold out at from five to eight guineas; medium price, 6*l*.

Dry cows kept up for spring sale from November; condition generally bad.

Sheep, on an average, 10*s*. per head for the season's grass, besides the fleece.

Fat cattle, generally fed out of the county, or in demesnes; price, 8*l*. to 14*l*.; medium, ten guineas.

Two-year-old oxen, from six to nine guineas.
Ewes, in poor order, from seven to twelve shillings each.

Young

Young pigs, which lately sold at one guinea each, are now so low as half a guinea.

Slips for fattening, from twenty-five to forty shillings.

Fat pigs, ad valorem, at about 4*d.* per pound, alive. The average weight of fat pigs, about three hundred and a half to four hundred weight. Milch cows, bought in for ten guineas, will sell out dry at from five to six guineas in spring, and, on good keeping, will be fat against Christmas, and be sold to a profit of from three to five guineas. Dry cows seldom exceed four hundred weight.

Working horses sell in spring for from 5*l.* to 10*l.*; medium 7*l.* Winter provender is so scarce, that this stock sells out at full one-half loss. They prefer smart, well-turned, light cattle, which answer for their spring work, after which they make them up for fairs in distant counties, to be sold for the saddle.

The fairs of Palmerstown and Donnybrook, in the county of Dublin, are always well frequented by Armagh dealers.

SECT. 6. *Modes of feeding—how far housed in winter.*

I HAVE already observed, that feeding is practised only in demesnes, and always on grass only.
Stall-

Stall-feeding is seldom engaged in but for home consumption; the food hay only. Milch cows are housed only from December till May.

SECTS. 7, & 8. *Natural grasses—Artificial grasses.*

THE natural grasses of this county have been particularly noticed in the sixth section of the first chapter; and in the first section of this chapter the nature of the pasture has been considered.

The culture of artificial grasses, which have been recommended, is treated of in the last section of the preceding chapter, under the head of *Crops not commonly cultivated to any extent.*

In converting grass-land to tillage, they take the first crop potatoes, but they manure with lime on the surface, sometimes three years before the sod is broken, and this they conceive superior to liming the broken ground; they contend, that the grass crops in the interim are greatly superior, and that the ground virtually possesses all the good effects, as when lime is incorporated by tillage into the soil. The second crop is generally potatoes, and also the third. Flax occupies a small proportion of the potatoe plot, and barley the remainder, if the soil is dry, and of a fine tilth; if otherwise, they sow it

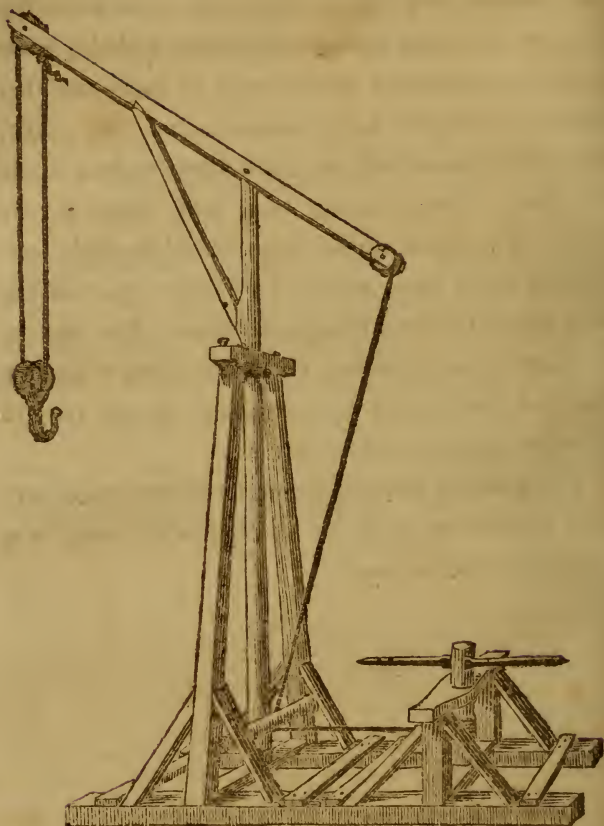
with oats. Of this last grain they take three successive crops. They never lay down, except in demesnes, with grass-seeds and white clover.

SECT. 9. *Mode of Hay-making.*

MEADOWS are begun to be cut about the latter end of June, and mowing generally holds for two months or more, as the grass ripens, or the weather permits. The hay crops are lighter than in more southern districts; the quality is sweet and wholesome, but the hay is deprived of some of its juices by too great exposure to the weather. Hay on limestone soils will not require so much drying. After cutting, they make small grass-cocks, which they leave so for one day in good weather; next, they make these into top-cocks, and in this state they leave the hay frequently for a week, which is very wrong. The tramp-cocks which they now make are very small, not containing more than from seven to ten hundred weight, and are left in the fields until the harvest is got up. In proportion to the number of these tramp-cocks, the quantity of hay is destroyed which composes their bottoms and tops; besides, the ground on which they stand is scalded, and, without manure, will not yield grass the next year. Add to these

these losses the cutting up of the fine aftergrass with the cars and horses, when they draw home the hay, at the time of its best vigour, and this mode must be condemned in the eyes of every thinking person. This has been admitted; but they argue, that their climate will not allow them to draw home the hay, without having been long kept in the field. If so, these tramp-cocks should be made convenient to the gate, and thus the entire grass of the field would be saved from destruction. But, surely, these cocks might as well be made at first in an airy haggard, and would be convenient at any time to be made together into a rick.

The annexed plan represents a machine peculiarly well adapted to hoist hay or corn to the rick, in a car-load at each draught.



The proportions are as follow :

The main pole from the ground to the collar twenty feet. The top pole from the collar to the arm eight feet. The length of the arm from the pole

to

to the pulley and block fourteen feet. The length of the short part of the arm eight feet.

Thomas James Rawson, Esq. of Cardington, near Athy, in the county of Kildare, is the inventor.

SECT. 10. *Dairies—their produce.*

ALTHOUGH there are no farmers exclusively in this branch of husbandry, yet, in the aggregate, a considerable quantity of butter is sold in Armagh and Newry markets for exportation. The small firkins, in which this article comes to market, prove the very slender stock of milch cows with each proprietor. It must not be understood, that the numerous small firkins, which are purchased in Newry, are all the produce of this county; perhaps not a fifth or sixth part will be found to be so. The counties of Cavan, Monaghan, Down, and Tyrone, send a great supply, any of them much more than Armagh; and I can shew two reasons for the assertion. Those counties are more extensive, and the people are more wealthy, and, of course, live better, and can afford to consume their butter in their own houses. Scarcely any farmer is without a cow; many have two or three, but their pastures are always overstocked. It is generally the wealthiest farmer

farmer who sends most butter to market ; perhaps he keeps the second cow entirely for profit. Some Belfast buyers employ commissioners at the principal towns to buy butter, which is sent thither by the Newry canal. One hundred weight of butter per cow is considered the usual yielding, but perhaps not above half of this quantity goes to market. The proportion of milch cows to the size of the farm is, for every small farm, under five acres, one cow ; if exceeding five acres, and not exceeding ten, perhaps two, seldom more. There are no extensive dairy farms in the county.

SECT. 11. *Prices of Hides, Tallow, Wool, and quantity sold.*

THERE is no great trade in any of these articles. When we shall speak of the trade of the several towns in the county, what usually occurs under this head will be mentioned. The average prices through the county the last year were ;

| | | | |
|---|---|---|---------------------------|
| Green hides, according to weight, | | | |
| from | - | - | 35s. to 45s. 6d. per cwt. |
| Calf-skins, ad valorem, from 2s. 6d. to 6s. 6d. per skin. | | | |
| Tallow, | - | - | 60s. per cwt. |
| Wool, | - | - | 18s. per stone of 16lbs. |

This

This last article is retailed in small parcels, at an advance of two-pence or three-pence per pound, and is usually sold at fairs; it is principally manufactured into coarse druggets and blankets. Very little of the wool, which this county affords, is exposed to sale; the very slender stock in the hands of an individual is reserved for home uses.

CHAP. IX.

FARMS.

SECT. 1. *Their size.*

THIS particular has been often spoken of ; but for sake of regularity, in reply to the query, I shall repeat that the average size of farms may be five acres ; the rent of the best cultivated districts three half guineas per acre, and from thence down to fourteen shillings. The medium rent of the poorest grounds, or mountainous district, five shillings per acre.

SECT. 2. *Farm Houses and Offices.*

THERE is so material a difference in this respect, between the centre and the boundaries of the county, that no average report can be strictly given. In the former

former the houses are remarkably comfortable, surrounded with orchards and neat enclosures; in the latter the reverse is the case, though still improving. Very little actual poverty, or few miserable huts, to be seen at all. The offices are not many, nor are they to be spoken of with any degree of credit. A stand for corn-stacks is rarely seen out of a gentleman's farm-yard.

SECT. 3. *Mode of repairing them.*

THE tenant always repairs at his own cost. If he is really improving and industrious, he seldom fails of assistance, from his landlord, of timber and other indulgences.

SECTS. 4, 5, 6. *Nature of Tenures; General state of Leases; of particular Clauses therein.*

GENERAL information on this subject is given in the second section of the second chapter.

The working weavers, who form the great bulk of the people, generally hold at will from the manufacturer or employer, or farmer, if we may so call him, as being a landholder. A very scanty garden, cottage,

tage, turf bog, and grass for a cow are furnished him, for which he pays about five pounds or guineas per annum. He is, by his agreement, to work in the field or at the loom at the option of his employer; if the former, the average wages is one shilling per day; the latter business is generally by task work.

Perpetuities are only in the hands of wealthy individuals, and those are but few. The general term of leases twenty-one years, and a life, but they are seldom clogged with restrictive or particular clauses.

SECT. 7. *Taxes or Cesses paid by Tenants.*

COUNTY cess and parish taxes only. The great subdivisions of farms often occasion much wrangling about the several proportions; in this case, the weakest too often pays the greater share. The county cess is more cheerfully furnished, as the benefits are individually felt, labour on the public roads being well paid for.

SECT.

SECT. 8. *Proportion of working horses, or bullocks,
to the size of farms.*

THERE is not a horse on every farm in the county for the work of that farm; a plough of cattle is made up by neighbouring farmers, who accomodate each other in turn, and there are no working bullocks at all. But, if the query should be, whether the number of farms or of horses be greater in the county? the answer would be greatly in favour of the horses. But, as I have already noticed, horses are speculated in for an exclusive trade, perhaps as much by townsfolk as by farmers, and are oftentimes only purchased for the probability of selling again at a large profit; we may conclude there is small use for working cattle, when we consider there is scarcely any but spring ploughing, during the year; of course, there is more work for their cattle at markets than in the field; they are employed much longer in drawing turf and manure, than they are in the plough and harrow.

SECTS. 9, 10, 11. *General size of fields, or enclosures; nature of fences; mode of hedge-rows and keeping hedges.*

GRASS fields, or well inclosed parks, close to the dwelling, which are not intended to be broken up
for

for tillage, are neatly fenced with quickset hedges, and are generally in size under one acre. The orchard is also well inclosed, but covers a very small area; the boundaries of the farm are generally well fenced, but the interior of it is mostly without any permanent division to keep cattle from trespassing on the corn; to prevent this, they tie their cattle to a stake, giving them a range of rope, till the plot within their reach is eaten down.

The fences are of white-thorn, with a ditch, or frequently are only loose stone walls; this boundary is repaired yearly, in turn, by the farmers whose lands join; but in several parts of the county fencing is shamefully neglected, and it is no uncommon thing, when the lease of a farm is nearly expired, to destroy the fences, and other improvements, to prevent the rent being raised in the new lease. Many of the gentry, as I shall just now shew, are extremely attentive to making good fences. Planting screens and clumps is now a more favourite pursuit, than that of hedge-rows, which in the present style of ornamental improvements give place to the former.

SECT. 12. *Mode of draining,*

Is generally by open sewers in the mountainous district; the interior of the county requires but little draining,

draining, as possessing a fine dry soil; the draining here is by French sewers; in moist lands they make open drains, which are only attended to, whilst the crop stands; very little has been yet done in draining turf bogs, or in making lasting drains through the lands, nor has the draining by the auger been yet attempted. I have seen some improvements by draining, when the trench was only opened in moory soils for the purpose of procuring manure.

The mountainous district might be made very valuable land, by a small attention to this branch; the numerous springs and quas,* which cover a great portion of ground, might be easily diverted off the surface, and large plots acquired which are now of no value.

Water, which lies on the surface and proceeds from rains, is easily diverted off, by sinking drains according to the fall of the ground; but the grand method of arriving at springs has been lately discovered by the ingenious Mr. Elkington, for which the parliament of Great Britain have rewarded him with a grant of one thousand pounds, and this has been effectually accomplished by the auger, or tapping and boring the earth, until the spring is reached, so that the water flows through this passage. Of this useful instrument, and of the method of using it, I have already given an account in my Statistical Survey of the county of Cavan, Chap. viii. Sect. 3.

SECT.

* Quas, a provincialism, signifying quagmires.

SECT. 13. *Nature of Manures.*

LIME is the general manure and powerfully effective in this country ; it is chiefly mixed with dung, clay, &c. for the culture of potatoes ; it is also applied in surface dressings to grass lands, preparatory to a tillage course : the quantity varies very much, from fifty to sometimes but ten barrels to the acre. Dung made of every scraping mixed with bog-stuff, when conveniently had, is also used, and with good effect, if a small portion of lime is added to the compost. In the clay soils, lime is not mixed with other composts, and succeeds better than any other manure ; this is carried perhaps from ten to twelve miles distance ; there are few instances, in which dung is applied to the raising of corn crops, their potatoe culture requiring all that can be supplied from their slender stock of live animals on such small farms. I have seen very fine crops of potatoes in a boggy soil, which had but a very slight sprinkling of lime, and no other manure ; excellent crops of this root are raised in moory soils, with the manure of turf ashes ; burning is however only permitted in low boggy soils.

The

The quantity of lime is proportioned to the length of time the ground has lain untilled, as, on stubbles, they only lay half the quantity they would spread on land long in grass: but we should suppose that, the later the soil has been in tillage, it would require the more of a revigorating manure, and *vice versa* with old lea; the farmers here, as elsewhere, are fond of old customs and their own opinions, which they defend on this principle, that lime, being spread on stubbles, is immediately ploughed in, and of course the grass receives no virtues of this manure, whereas in manuring lea two or three seasons before a course of tillage they assert, that two or three good crops of grass are ensured, and that they have the sod in fine preparation for quickly rotting, and the ground meliorated against the tillage course; and that, in liming on the stubbles, the good effects of this manure will not appear, except there are three, or two ploughings at the least, before the seed is sown.

Another mode of liming is also practised, when they mean to work the soil to the utmost it can produce, or, in other words, to run it out, previously to the expiration of a lease, which they do not expect will be renewed: they spread the lime on the potatoe ridge, which they cover with dung, and thereon lay the seed with two or three shovels

velings of earth ; this ensures a great crop ; wheat, or barley, or both, are next sown, the potatoe plot being divided under these two two crops, and this culture held for four successive seasons, changing plots each year from wheat to a barley crop, and *vice versa*, and seldom with more than one ploughing. No intermediate green crop is ever sowed, or any manure applied, and the whole field is then given up to raising oats, and it is held in this tillage whilst it can yield a crop, which sometimes it will for three, four, or five successive seasons, until it is totally exhausted ; this mode is fully as destructive to land as burning, and yields as ample crops.

Lime is applied to clay lands with advantage, but I have observed many farms of this county, where it has been prejudicial on light soils, particularly of limestone, where it had not been previously mixed with clay or bog-stuff, but was applied in its caustic state.

Limestone gravel, as a manure on deep stiff clays, or on moory soils, is superior to any other ; on the former, as imparting not only its calcareous, but its mechanical use also in opening and separating the soil, and both of these effects are durable ; on the latter description of soil, it is of equally good effect, though in a contrary manner, as it binds this soil, and gives it that degree of firmness and consistency, which stiff clays possess in too great an extreme.

This

This manure is not sufficiently used here, though in many places in the interior they possess it in great perfection.

Limestone gravel when heaped and burned, together with the surface sods of boggy soils that have been drained, becomes a very fine manure for destroying all aquatic herbage, and is also an excellent preparation for a turnip crop, before the land is laid down in meadow: this, however, should previously to the last crop, or to that in which the grass seeds are sown, have another dressing of the gravel in its purity unmixed, which will give weight and strength to the soil; in this case, rye or ray grass, or clover, have been profitable crops; the rye grass should be sown in winter, and will ensure a very early crop of hay, and we may reasonably calculate on the seeds, which will be threshed from it, full three pounds per acre, exclusive of the value of the hay.

A material benefit in the manure of limestone gravel on ground newly laid down for sheep-walk is, that such land never fails to produce white clover naturally and abundantly.

Before we conclude the section of manures, it is necessary to remark, that by feeding cattle in the field, according to the usual custom, above one half of the manure is lost, which might be gained from the urine of animals only, if collected in proper reservoirs.

reservoirs, and mixed with suitable composts. If the cattle, which are necessary for the culture of a farm, were fed within doors, their dung would go a great length towards the supply of manure requisite for that farm; by this mode it should be understood, that the best farming is by blending these two pursuits together, and by making the tillage farmer depend on his vegetable crop for a supply for his stock, whose dung will always keep his ground in perpetual heart and vigour.

Irrigation is now known to be a very powerful manure to meadow land; there are numerous farms in this county, where it might be applied with success, and at a small expence; I have seen this operation practised on potatoe crops in drill with very good effect, when the general crop of the kingdom had failed from a long and continued drought.

Though sheep will fatten very quickly on the aftergrass of water meadow, it is not adviseable to hold them over for breed, as this pasturage has a great tendency to rot their liver; indeed it seldom fails to produce this effect. Such sheep only, as are intended for market, should be fed on this grass, and be sold off as soon as in condition; otherwise they gradually fall off and grow consumptive.

The

The produce of hay, yielded by irrigation, is perhaps incredible. I have known land which, from this circumstance, not otherwise intrinsically worth sixteen shillings per acre, made equal to ten guineas per acre in the Queen's County,* or which yielded that sum by being set out for meadow, exclusive of the aftergrass, and continues to do so every year without intermission. The proprietor could easily have solvent tenants for the whole tract of his water meadows on a long lease at seven guineas per acre.

Marling is so little engaged in in this county, that I shall not enter into its merits. Lime is more certain, and generally more easily obtained than this manure.

Aftergrass, as a manure, is not known here; pasturage is too scarce at all seasons.

Bog-stuff is excellent in a compost with lime for light soils, as it corrects the caustic heat of the lime; it is used with great success without any mixture, in protecting the buds and leaves of potatoe crops from the spring frosts; it can also be highly enriched by being spread in stalls under cattle, as it soaks up their urine and retains its salts; it is also a valuable manure, when applied as a surface dressing to meadows of a light soil, ensuring a very early verdure.

R 2

Good

* See the Statistical Survey of that County by the Author, pages 77 and 78.

Good lime-kilns are rarely seen in this county. It should be the care of the proprietor of an estate, to erect proper kilns to supply his tenantry with lime at first cost ; where it can be accomplished, no surer means could be adopted to improve an estate without any expence to the proprietor.

For an improved plan of a lime kiln, see the Statistical Survey of the County of Cavan, page 68.

CHAP. X.

GENERAL SUBJECTS.

SECT. 1. *Population.*

ARMAGH is indisputably, in proportion to its size, the most populous county in Ireland. Although much of the surface is covered with mountains, yet the greater part of the wildest country is very thickly inhabited, and it is on this account that its superior population is allowed. I doubt not, but in the neighbouring county of Down there are certain parishes, where the inhabitants and houses are as numerous, as will be found in the like area in this county, but their mountains, which cover so great a tract, are almost uninhabited; a circumstance which pretty clearly proves, what great capability the roughest parts of this county possess, as sustaining so numerous a population.

Mr.

Mr. Bushe's* calculation of the number of inhabitants of Armagh was ascertained by taking the population of 1705 houses, of every description, which were found to contain 6988 souls, or more than six to each house. In Dr. Beaufort's Memoir of his Map of Ireland it is stated, that, from the reports of the hearth-money collectors to the year 1790, the county contains 21983 houses, and 120,000 inhabitants at five and a half to a house, but this he supposed to be far below the truth.

The population is at the rate of eight and one-fifth acres to a house, or of nearly seventy-eight houses, and 429 souls, to every square mile, which is something less than one and a half acre per head; and he justly attributes the extraordinary population to the great industry of the people, and the flourishing state of the linen manufacture.

I believe the general report will be nearer the truth, if estimated at 125,000 souls.

I have heard that the late Rev. Dr. Hamilton, who was unhappily murdered during the disturbances in this country, had made some ingenious calculations, and took the actual population of some districts, in which the return exceeded all belief.

* See his paper on this subject, in the Transactions of the Royal Irish Academy, 1789.

belief. In one parish the inhabitants were so numerous, as in the same proportion would have equalled 300,000 souls in the county.

The population and the number of houses are at present in progressive encrease.

SECT. 2. *Number and size of Villages and Towns.*

IN the thirteenth chapter will be found a particular description of the several towns in the county, and the trade or manufacture for which they are remarkable.

In the following table are the names of the several towns and villages in the county, distinguishing the market, fair, and post towns, with the number of days in the week on which the post arrives from Dublin.

The fairs and markets are, in general, well attended by retailers of hats, stockings, shoes, cloth, and wool, from other counties; and also by pedlars, whose stock consists of articles of apparel, principally of women's wear, and hard-ware. These itinerant dealers are always travelling from one market town to another; some of them have no fixed residence.

TABLE OF TOWNS AND VILLAGES.

| <i>Baronies.</i> | <i>Towns.</i> | <i>Villages.</i> |
|------------------------------|---|---|
| Armagh. | Armagh, M. F. P. 6. Blackwater Town, F. Charlemont joins Moy, which is a post town in the county of Ty- rone, F. | Keady, F. Killyleagh, F. |
| Fews, Upper and Lower. | Market-hill, M. F. P. 6. Newtown-Hamilton, F. | Baleek, F. Crossmaglin. Cullovile, F. Hamilton's-bawn, F. Johnston's-fews. Mohan. |
| O'Neiland, East and West. | Lurgan, M. F. P. 6. Portadown, M. F. P. 3. Rich-hill, M. F. P. 3 | Loughgall, F. Maghery, F. |
| Orior, Upper and Lower. | Fleury-bridge, better known by Jonesbo- rough, F. P. 6. Newry, M. F. P. 6. Tanderagee, M. F. P. 6. | Acton. Clare, F. Drumbanagher. Fork-hill, F. Poyntz's-pass, F. Portnorris. Scarva. Tuscan's-pass, F. |
| Turenny. | Tynan, F. P. 3. | Middleton, F. |

M. denotes a market ; F. a fair ; and P. a post town. The figure marks the number of days in the week, on which the post arrives from Dublin.

SECTS. 3, 4. *Habitation, Fuel, Food, and Clothing of the lower Rank; their general Cost; Price of Wages, Labour, and Provisions; and general View of the RURAL ECONOMY of the County.*

I HAVE already stated, that the habitations of the lower order are tolerably comfortable, and by much exceeding any thing in this respect, that I have ever witnessed

In some of the old maps, Magheralin village is set down within the bounds of this county, which is erroneous, as it is in the county of Down. In Seward's Topography of Ireland, there are descriptions of two villages of this name, one of which he states to be in Armagh, and the other in Down county; however, this is only confusing the account of one and the same village, which is situated on the Lagan water, in the county of Down, and is remarkable for a very neat church and steeple, and a good episcopal palace was built here, anno 1695, by the Bishop of Dromore. The bounds of Armagh range very near to this village, which doubtless has occasioned this mistake.

Some remarkable ruins have lately been traced in this village.

witnessed among the peasantry of Ireland, nor is it solely to be attributed to their attention to the linen manufacture; their neighbours, of the same order and trade in Cavan and Monaghan counties, are far behind them in wealth and comforts, or, indeed, in civilization. The county supplies a sufficiency of fuel for its culinary consumption, but the distribution of this necessary article is very unequal; this is a general complaint, but the navigation, which extends along the whole line of the county, serves very considerably to redress this grievance.

A supply of coal might be had for the whole county, if the collieries of Tyrone were properly worked; in fact there are means of remedying this want of fuel, if they were only brought into fair trial.

The general rent of a cottage, with a garden for the potatoe and flax plots, is from two to three guineas per annum. In towns, where they hold but a small cabbage garden in the reere, the rent averages about forty shillings.

They pay for turf annually about three guineas, or two shillings per horse load, but in scarce seasons it will double this cost. Turf bogs are, in general, very much exhausted. For house, garden, potatoe and flax land, with grass for a cow, the weaver pays from five to six guineas per annum, and receives,

receives, with diet, six pence half-penny per day through the year, for his work in the field or at the loom, or one shilling without diet.

The rent of a cow's grass has been more than doubled within these five or six years, and the pasture in general very poor: potatoe and flax land averages six guineas per acre.

The expence of building a comfortable cottage will amount to about seven guineas, viz.:

| | £. | s. | d. |
|------------------------------|-------|----|----|
| Mud-work and plastering, - - | 3 | 8 | 3 |
| Roofing, - - - - - | 1 | 14 | 1½ |
| Thatching and straw, - - - | 2 | 5 | 6 |
| Door, and leaded windows, - | 0 | 11 | 4½ |
| | <hr/> | | |
| | £.7 | 19 | 3 |
| | <hr/> | | |

Some cottages are put together at the cost of from three pounds to five pounds, but are of very inferior materials.

A rood of ground is generally allotted to each cottage.

The food of the lower rank are potatoes, stir-about, oaten bread, garden vegetables, bacon in summer, and beef in winter: there is no part of Ireland, where the peasantry consume so much flesh-meat,

Average

Average prices, for the last seven years, of the following articles of provisions, excluding the two years of scarcity:

| | s. | d. |
|--|----|-----------------|
| Potatoes per stone, of 14 $lb.$ - - - | 0 | 2 |
| Oatmeal per cwt. of 112 $lb.$ - - - | 9 | 0 |
| Beef, per lb. - - - - - | 0 | 4 |
| Ale, per quart, - - - - - | 0 | 2 $\frac{1}{2}$ |
| Cheese, per lb. - - - - - | 0 | 9 |
| New milk, per quart, - - - - - | 0 | 1 $\frac{1}{2}$ |
| Butter milk, per pottle, - - - - - | 0 | 0 $\frac{1}{2}$ |
| Herrings, per hundred, of six score, - | 4 | 6 |

The clothing consists of strong cloth, much of which is manufactured at home, and they dye it a good blue; this cloth is never exposed for sale, but always made for home use. It is not so fine as forest cloth, but wears much better, and does not stand the consumer in half the price of the latter; this clothing is more commonly worn by the wealthy farmer or manufacturer; the lower class purchase frize at two shillings and six pence or three shillings per yard, which is retailed at fairs, markets, and country shops, and is chiefly manufactured in Connaught.

General

General cost of clothing.

| | £. s. d. | | |
|--|----------|----|---|
| Frize coat, waistcoat, breeches, trim- | | | |
| ming, and making, - - - | 1 | 10 | 0 |
| Outside coat of ditto, - - - | 1 | 0 | 0 |
| Shirt, - - - - - | 0 | 4 | 0 |
| Shoes, - - - - - | 0 | 6 | 6 |
| Brogues, - - - - - | 0 | 5 | 0 |
| Stockings, - - - - - | 0 | 2 | 6 |
| Hat, - - - - - | 0 | 3 | 3 |

General cost of man's dress, including great coat, about three guineas.

Womens' wear, of cotton, will amount to about 3*l.*, with cloak, petticoat, shoes, stockings, &c. If druggat is substituted for cotton, the cost will be about one-third less, and the article more durable. In general, the women are better clad than the men, and make a gayer appearance on holidays. Their earnings are generally spent on finery, as the man's labour procures them provisions.

The price of labour, for constant work in the field, or of cottiers wages, who are employed by the gentry in their demesnes, varies from ten-pence to thirteen-pence per day the year round; but they pay their employers three guineas per annum for a house,

house, cow's grass, and garden of half an acre, which they hold at will. Labourers, who have not cottages, or cow's grass, receive better wages, about two-pence more per day. There are few of this description who do not reside in towns, and, as labour is in demand, they exact high wages. Weavers are generally paid for their day's work one shilling ; but, when there is a brisk demand, and large orders out for linens, they can average 2s. 6d. per day at task work. Those weavers, who sell their own webs at market, and rear their flax, will oftentimes make five shillings a day of their labour, when the demand is brisk.

It may be always concluded, that the linen trade is flourishing when labour is high.

The male servant of the farmer or manufacturer will receive about six guineas per annum, with board and lodging ; the woman about 3*l*. The general employment of the women is spinning.

Hours of labour in summer, from six in the morning to seven in the evening ; two hours allowed for meals. In winter during day-light, and one hour only allowed for meals.

Reaping.

| | | | s. | d. | |
|---------------|--------------|-----|----|----|----------|
| Reaping, | { With diet, | - - | 1 | 1 | per day. |
| | { Without, | - - | 1 | 7½ | _____ |
| Mowing, | { With diet, | - - | 1 | 1 | _____ |
| | { Without, | - - | 1 | 7½ | _____ |
| Turf-cutting, | { With diet, | - - | 1 | 1 | _____ |
| | { Without, | - - | 1 | 7½ | _____ |
| Threshing, | { With diet, | - - | 0 | 6½ | _____ |
| | { Without, | - - | 1 | 1 | _____ |

These works are often engaged in by task; but seldom more money is earned, except in the vicinity of towns, where perhaps a third more is paid for labour; all the weavers are expert at the general business of the field.

Women's wages are about sixpence per day for day's work; children's from threepence to sixpence. But, at some branches of the linen manufacture, if they had constant employment, they could earn tenpence per day.

Average clothing of a man, per ann. 3 guineas.
 _____ of a woman, - - 2 guineas.
 _____ of a child, - - 15 shillings.

The wages having been stated, I shall state the average value of labour to the employer, or to the cottager, if he works on his own account.

Of a man, per annum, 25*l*.
 Of a woman, - - 12*l*.
 Of a child, - - 7*l*.

The

The average value of diet cannot be rated at less than 12*l.* per man, 9*l.* per woman, and 4*l.* per child, per annum. For fuel, soap, candles, and house rent, the average may be six guineas.

| <i>Cr.</i> | <i>£.</i> | <i>s.</i> | <i>d.</i> | <i>Dr.</i> | <i>£.</i> | <i>s.</i> | <i>d.</i> |
|---------------|-----------|-----------|-----------|-------------------------|-----------|-----------|-----------|
| Man's labour, | 25 | 0 | 0 | Man's diet, - - | 12 | 0 | 0 |
| Woman's, | - 12 | 0 | 0 | Woman's, - - | 9 | 0 | 0 |
| Child's, | - 7 | 0 | 0 | Child's, - - - | 4 | 0 | 0 |
| <hr/> | | | | House-rent, fuel, soap, | | | |
| | £.44 | 0 | 0 | and candles, - | 6 | 16 | 6 |
| | | | | Man's clothing, - | 3 | 8 | 3 |
| | | | | Woman's, - - | 2 | 5 | 6 |
| | | | | Child's, - - - | 0 | 15 | 0 |
| | | | | <hr/> | | | |
| | | | | | £.38 | 5 | 3 |
| | | | | Balance, - | 5 | 14 | 9 |
| | | | | <hr/> | | | |
| | | | | | £.44 | 0 | 0 |

The balance is 5*l.* 14*s.* 9*d.*, which an industrious family will soon encrease to a sufficiency for stocking a small farm, or setting up looms for journey-men. There are no wages in husbandry, where so much money can be saved.

SECT. 5. *State of Tithe; its general amount on each article; what articles are exempt, and what charged by modus.*

| | s. | d. |
|-----------------------------------|----|----|
| Average tithe of Wheat, per acre, | 8 | 0 |
| Oats, - - - - | 4 | 6 |
| Barley, - - - - | 6 | 0 |
| Meadow, - - - - | 2 | 6 |

And in some places a modus of one shilling for the quantum on the farm.

Potatoes do not pay an acreable tax, but a small modus is claimed, though seldom insisted on, and in some parishes they are tithe-free. Flax pays a modus of one shilling for the quantity on each farm, be it more or less.

In some parishes 2s. 6d. for the entire farm is supposed to be a fair composition. It must be remembered that these farms are very small, and nearly three-fourths generally under tillage. When there is a composition, there is no additional charge for small dues.

The average tithe of grain, as stated above, will often, when the crop is valued whilst growing, be estimated at from two to three shillings per acre higher. In such cases the crops are very good.

s

Small

Small dues do not exceed three shillings per annum for all demands, exclusive of marriages, christenings, or burials.

SECT. 6. *Use of Beer and Spirits—whether either, or which is encreasing.*

From the time of the late scarcity, the use of spirits had greatly declined; but, since the restrictions on distilling have been taken off, there is again a redundancy of spirituous liquors at a low price. However, to the credit of the people of this county, they are more sober, and better civilized, than we see in other counties. Malt liquor is, for this reason, in more general estimation than in other parts.

SECTS. 7, 8, 9. *State of Roads and Bridges, of Navigations and Navigable Rivers, of Fisheries, and of Manufactures; or a general view of POLITICAL ECONOMY, as affecting Agriculture, or connected with it.*

SEVERAL of the roads of this county are in good condition; but the greater number are bad, many of them in the extremest degree.

The

The turnpike road from Armagh to Newry is, perhaps, the worst in Ireland as a public road, and is a disgrace to an opulent county. The turnpike road from Jonesborough is generally in bad repair; and the county road from Newry to Castleblaney is always in most wretched order, though by far the greatest thoroughfare in the county. The roads in the barony of Turenny are not so rough as badly planned. In O'Neiland they are rough and narrow, with some dangerous steps. In Lower Orior they are tolerably good, but in Upper Orior the reverse. The best roads are in the barony of Armagh. The interior of the county has abundance of good materials for road-making; the boundaries are, for the most part, very deficient in such supplies; but, on the whole, the neglect is greater than the want of materials. County roads are made and repaired at the expence of the barony, through which they pass; and turnpike roads from the tolls they produce, under the controul of directors.

The great mistake in the roads of this county is, the neglect of originally making the centre of the road higher than the sides, which would throw off the water into the ditches; nor do they seem to understand, that winding a road through the valleys is as short a distance as ascending and descending the hills, independent of the great labour and danger attending the latter.

As the tenantry on the several estates, through which the roads pass, are employed with their horses in making and repairing them, they are generally well paid; and, independent of the benefit they receive from this improvement, their profits often exceed their proportion of the tax, which is always cheerfully paid.

Bridges are in good repair generally. It requires very intelligent overseers to inspect bridge-building, as masons too frequently, through interested motives, construct these works in such a manner, as will ensure them frequent jobs.

I have already pretty fully spoken of the navigation of the county, in the eighth section of the first chapter.

I do not learn that there is any established fishery, of individual property, in the county.

The fishery of Lough Neagh, to the centre of the lake, is the right of the proprietor whose lands form the shore.

The great rivers being on the boundaries, their fisheries are jointly the right of the several proprietors on their banks; but there is no steady revenue yielded from any fishery in the county.

I shall now beg leave to anticipate the subject of the fourteenth and fifteenth sections of this chapter, as manufactures are so connected with the political economy of the county, which is now under discussion.

A reference

A reference to the manufactures of this county has necessarily very frequently occurred in the course of this work ; and it must be understood that this pursuit, almost entirely in the linen branch, occupies the attention of the people. Agriculture is but a secondary motive ; it is merely pursued as the means of supply of provisions, rather than of trade from which any profit may be gained.

Land is sought, for the more easily and comfortably carrying on manufacture ; and notwithstanding the supposed superior profit on rearing flax, the raw material of their trade, I believe that the people would rather have nothing to do with agricultural pursuits, if the markets were more numerous, and constantly supplied with provisions.

I know there are many wise men of opinion, that the management of the lands of this province should be entirely changed ; that manufactures should be confined to towns ; that the lands should be portioned in large farms, and agriculture become a business in itself ; that it is a science, which requires an undivided attention ; and that manufactures would flourish better, if unconnected with the cares of husbandry ; and they argue, that there are not wanting precedents sufficient to prove, how successfully manufactures are now carried on under such regulations.

This

This is a subject, which admits weighty argument on both sides of the question.

Manufacture and agriculture are pursuits, which differ widely; and certainly an undivided attention to either business ought naturally to ensure its success.

If the sedentary business of the loom is so prejudicial to health, and it is corrected by the labour of the little farm, it will counterbalance many objections, which might be offered against the connexion of the two pursuits; but a good garden at the rear of each house, which should be the case in every manufacturing town, would also require cultivation, so as to relax sufficiently from the labours of the loom.

An important evil, which manufacturing towns are ever subject to, is the danger of combination amongst the tradesfolk; and this nuisance has raised the price of the necessaries of life, and of labour, more than perhaps all other causes taken together.

In further opposition to any change, it is asserted by the advocates for the present system, that it would be presumption to recommend any material alteration in a county, where the lower class of people are wealthy, industrious, civilized, and tolerably well educated, and on whom the prosperity of the county so much depends; that it would be ridiculous to hazard the loss of a positive good, by adopting
ing

ing a novel system, whose success must be at best but doubtful; and that, until a yeomanry or peasantry can be shewn, who are more wealthy or independent under such a system as is now proposed, it is absurd to talk of superior benefits.

It is true that there are neighbouring counties occupied, in like manner as Armagh, by manufacturers, who also pretend to be farmers, whose rents are proportioned to the quality of the land in a more favourable ratio, and whose farms are as small; yet their culture is slovenly, their fences naked, their dwellings miserable, and a general gloomy poverty prevails through a comparatively illiterate and uncivilized peasantry. In such places errors must exist, and experiments may be tried, and remedies proposed, where the evil is great; but in this county, where the inhabitants are on a more respectable footing than in any part of the province, there must be, of course, the less occasion for any material reformation.

I do not venture to give any opinion on so important a subject; but I must confess, that the extraordinary comforts, so eminently enjoyed by the people of this county, both of the middle and the lower class, was a matter of astonishment to me, who had been well acquainted with the relative situation of those classes in other counties in this province, where their pursuits, both in and out of doors, so
exactly

exactly corresponded. The great difference in the comforts of those people could not entirely consist in the inferiority of *their* soil, comparatively with that of Armagh; for they too have very good crops of corn, and they have fuel in abundance, and on much better terms than it is to be had in this county. It is a matter of moment to investigate this difference, and discover its cause.

I conceive it proceeds from two causes; one of which is, that more money can be earned by the manufacture of fine, than of coarse linen; Armagh being more engaged in fine webs, than the counties of Ulster which lie west of it. But the other is the primary and chief cause; the people are more industrious and sober, and their earnings are seldom spent in the dram-shop.

Perhaps in the poorer counties they are a more hard working people, employed earlier and later than in Armagh, but they are not regularly so; they are only industrious when pinched by poverty, when their wages have been squandered, and when they are overwhelmed with debt. In this county, a steady industry affords a sufficiency for the moderate comforts of life, and will admit of a redundancy for other purposes, without exhausting nature by extraordinary labour at such a sedentary business as the loom.

Unfortunately for the lower classes of the community, they cannot bear prosperity; and, if the wages
of

of six days can be acquired by extraordinary exertions, or a brisker demand of the trade, in four, the overplus is too frequently spent in dissipation, which enervates the constitution, and begets a habit of idleness. In cities, where there is less simplicity of manners, and more vicious habits amongst the people, this evil is not productive of such hardships to its votaries; for there the tradesman raises the price of wages by combination, which his employer is sure to profit by in a tenfold ratio, and will tacitly encourage. This burthen now bears heavy on the consumer, who has by his inactivity seemingly consented to it, or left it to the correction of the legislature, who have been too supine in a matter of such moment. Indeed the evil is now so far established, that it would be a very difficult task to appreciate the value of the several handicrafts labour. To proportion their wages to the price of provisions is quite out of the question, so long as the effecting an artificial scarcity is practised, and the principal trade of provisions suffered to remain in the hands of a few monopolizers. If this novel system, which now exists, of permitting individuals to hoard and regulate the prices of provisions as suits their pleasure, was entirely abolished, then a law might be easily framed to appreciate the value of wages at all times. Combination would be thus completely overthrown,
and

and each article of life would soon find its level, and be sold at the real value.

To attain this wished for reformation, tradesmen should be prohibited to form themselves into societies. It is well known they subscribe weekly sums, under the pretence of supporting their families in sickness, or procuring for them decent funerals, at the joint expence of the body or trade to which they belong ; altho' their real design is, to consult how they can best pillage the public by combinations for encrease of wages ; which when they have determined on, they resist work until their unlawful demands are complied with ; and they are subsisted, in the mean time, on the money, which they have previously subscribed to a stock purse, which in general contains a very considerable sum.

I ask pardon for the digression ; but I wish to shew to the country weaver, that he has not the same resources for idling two days in six, as the city handicraft ; he must give up extraordinary labour, hurtful to his constitution, but he cannot fix the price of his labour, or procure an encrease of wages by combination. The staple commodity of the nation is happily protected by wise laws, strictly enforced, which it is out of his power to innovate ; and the trade is conducted by men of character, who would scorn to stoop to the knavish intrigues, which a petty corporation will not scruple privately to encourage,

courage, though they may publicly protest against them. Thro' the favour of governments corporations were privileged; it should be their concern, as it is their duty, to oppose combination by the most vigorous and active exertions. Commensurate to this grievance, it is incumbent on the legislature to enact a severe law; the half-stifled rebellion would receive through it a deadly blow; and industry should be resorted to, in place of the very vicious dissipation which exists, and which it is highly impolitic to suffer.

In returning to the subject of the manufacture of this county, I conceive it is not within the limits of this Report to trace its origin here, nor its subsequent history. These facts, many of my readers well know, are of the most ancient date; suffice it to report its present state.

The linen manufacture is pursued here in all its various branches, and particular markets are established for the sale of each kind of goods and materials. The weavers of the finest goods reside northward in the county, and in this district their markets are; and *vice versa* with those inhabiting the borders of Monaghan county.

The various branches of the trade consist in cambrics, lawns, linens, diaper, damask, and chequers. Those weavers, who work at the finer branches,

branches, will earn from fifteen to twenty per cent. more, in the same given time, than weavers of coarse goods, but there is oftener a stagnation in their trade. The coarse linen weavers have generally a knowledge of weaving cotton goods, and will oftentimes, when the demand is brisk, lay aside their linen webs, and turn to this branch ; but a regular-bred cotton or muslin weaver has not a knowledge of the linen manufacture, so that he has not equal advantages with the coarse linen weaver, and much less with the lawn and cambrick manufacturer, who always can earn better wages than any other weaver.

If a weaver works his own flax, which he has reared from the seed, his profits will be encreased from three-pence to sixpence per day, according to the excellence of the mode of dressing which he adopted, on which a great deal depends. But it is possible that a loss may happen, if yarn is in poor demand, and his stock is large.

The extent of the manufacture cannot be ascertained exactly by the return of sales made in the different markets, as webs from neighbouring countries come in, and also webs from hence are sold in markets out of this county.

Great capitals are employed by bleachers, who purchase webs, and bleach on their own account.

Considerable

Considerable sums are also engaged in the purchase of yarn, which is given out to the weaver to manufacture; or the weaving is often contracted for by those wealthy manufacturers, who do not work themselves, yet keep journeymen constantly employed, either on their own account, with their own yarn, or on that of the merchants, with whom they contract.

The general evil, which is felt in most parts of this province, and in none more particularly than in the districts of Armagh remote from navigation, is the great consumption and scarcity of fuel, which encreases with the extension of the linen manufacture. In many parishes there is more fuel consumed in these works, than by all the inhabitants of the parish for culinary purposes; nor is there a doubt that, if some other besides turf fuel is not resorted to, in a very few years the bogs of this county will be exhausted.

The number of looms exceed the number of houses, as most houses have two or three looms, and frequently they are all at work, when the demand for linens is brisk, at which times many new looms are made, so that we may fairly assert that the number of looms is encreasing: flax land being in greater demand and of higher value, is a proof there is no diminution in the trade.

Woollen

Woollen goods are made only for home consumption, and not for sale, nor is one family in ten supplied with a sufficiency of their own manufacture.

In Armagh and the other towns of the county, are the usual small manufactories of necessities, as brewing, chandling, soap-boiling, tanning, &c. and also numerous handicrafts, who execute their trades well; but there is no particular manufactory, if we except the Armagh side of Newry town, in which a respectable capital is sunk, exclusive of the linen business.

The particulars of the trade of each town will be spoken of in the Baronial Survey, thirteenth chapter, as they occur.

As to the encouragement to manufactures, and the peculiar aptness of the situation for their extension, it is favourable, whilst the well established markets are so steadily attended by buyers of respectability. In the vicinity of navigations, where fuel is so easily conveyed, these situations must have superior advantages, and, exclusive of the linen trade, the malting business and corn buying have been considerably encreased in these districts; and stores have been built, which also will be mentioned in their proper places.

The

The annual estimate of the linen trade of this county is rated at 300,000*l.*; the goods of most repute, and of the best fabric, are of nine, ten, and eleven hundreds, and from thence above twenty hundreds. By hundreds is meant the number of threads in the warp of the web, which is always rated at one yard in width.

An Account of the Number and average Value of Packs and Boxes of Linens, which have come into the Linen Hall of Dublin, from the County of Armagh, in the following Years:

| Years. | Packs. | Boxes. | Total number of pieces in packs, supposing 75 pieces in each pack. | Total number of pieces in boxes, supposing 60 pieces in each box. | Total number of pieces in packs and boxes | Total value of pieces in packs and boxes, taking coarse and fine all round, at an average of £1. 14s. 1½d. per Statute price. |
|---------------|-----------------------------------|----------------------------------|--|---|---|---|
| | | | | | | £. s. d. |
| 1792 | 1870 | 684 | 140,250 | 41,040 | 181,290 | 309,326 1 3 |
| 1793 | 1546 | 581 | 115,950 | 34,860 | 150,810 | 257,319 11 3 |
| 1794 | 1550 | 557 | 116,250 | 33,420 | 149,670 | 255,374 8 9 |
| 1795 | 1157 | 513 | 86,775 | 30,780 | 117,555 | 200,578 4 4½ |
| 1796 | 1084 | 662 | 81,300 | 39,720 | 121,020 | 206,490 7 6 |
| 1797 | 1042 | 439 | 78,150 | 26,340 | 104,490 | 178,286 1 3 |
| 1798 | 1119 | 396 | 83,925 | 23,760 | 107,685 | 183,737 10 7 |
| 1799 | 923 | 477 | 69,225 | 28,620 | 97,845 | 166,948 0 7½ |
| 1800 | 1136 | 555 | 85,200 | 33,300 | 118,500 | 202,190 12 6 |
| 1801 | 1078 | 479 | 80,850 | 28,740 | 109,590 | 186,987 18 9 |
| 1802 | 832 | 451 | 62,400 | 27,060 | 89,460 | 152,641 2 6 |
| | 13,337 | 5794 | 1,000,275 | 347,640 | 1,347,915 | £2,299,879 19 4 |
| Years average | 1212 ⁵ / ₁₇ | 526 ⁹ / ₁₇ | 90,934 ¹ / ₁₇ | 31,603 ⁷ / ₁₇ | 122,537 ⁸ / ₁₇ | £209,079 19 11¼ |

LINEN-OFFICE, May 29th, 1803.

JAMES CORRY.

An

An Account of the Sums paid by the Trustees of the Linen and Hempen Manufactures of Ireland in the following Years, by way of Bounty to encourage the Cultivation of Flax in the County of Armagh, and the Quantities of Flax Lands in the said County, which in the said Years received the said Bounty.

| Years. | Acres. Roods. | | | Bounty. | | |
|----------|---------------|---|-----|------------|----|----|
| | | | | £. | s. | d. |
| 1786 - - | 266 | 3 | - - | 280 | 13 | 0 |
| 1787 - - | 495 | 0 | - - | 391 | 4 | 8 |
| 1788 - - | 428 | 0 | - - | 338 | 5 | 11 |
| 1789 - - | 242 | 2 | - - | 191 | 7 | 10 |
| 1790 - - | 254 | 3 | - - | 171 | 19 | 3 |
| 1791 - - | 239 | 0 | - - | 161 | 8 | 6 |
| 1792 - - | 389 | 3 | - - | 222 | 8 | 5 |
| 1793 - - | 300 | 2 | - - | 202 | 15 | 0 |
| 1794 - - | 156 | 2 | - - | 105 | 11 | 9 |
| 1795 - - | 244 | 3 | - - | 174 | 8 | 3 |
| 1796 - - | 1134 | 0 | - - | 2579 | 17 | 0 |
| <hr/> | | | | <hr/> | | |
| 4151 2 | | | | £.4820 4 7 | | |

LINEN-OFFICE, *May 29th*, 1803.

JAMES CORRY.

SECT. 10. *State of Education, Schools, and Charitable Institutions.*

THE youth of this county have the advantages of a better education than in most parts of Ireland ; this is evident from the superior civilization and manners of the people. A particular account of schools and charitable institutions will be given in the thirteenth chapter.

SECT. 11. *State of Absentee and Resident Proprietors.*

THIS is fully stated in the fourth section of the second chapter.

SECT. 12. *Circulation of Money or Paper.*

THE linen trade in all its various branches is carried on with specie only. Rents are almost all paid in specie. Linen merchants pay a discount of from two and a half to four per cent. for gold, with which they purchase their webs.

It is also understood, that all commodities, sold in fairs or markets, must be paid for in specie,
except

except the contrary is particularly mentioned in the bargain.

SECT. 13. *Farming or Agricultural Societies.*

THERE is not one yet established in the county ; Colonel Sparrow, of Tanderagee, has set a liberal example to his neighbours, for the encouragement of industry, by offering to his tenantry the premiums stated in the fifth section of the thirteenth chapter.

SECTS. 14, 15. *State of Manufactures, whether increasing ; of encouragement to them, and the peculiar aptness of the situation for their extension.*

FOR these particulars, see the ninth section of this chapter.

SECT. 16. *Of Mills of every kind.*

MILLS are of two descriptions only in this county, those necessary for the linen, and those for the corn manufacture. Of the former kind, are bleach-mills and flax-mills ; of the latter, are oat-mills and those for the manufacture of flour ; oatmeal-mills are usually

T 2

driven

driven by water, but many of them are wind-mills.

The manufacture of flour is very limited, that of oats considerable in the aggregate, but all corn is manufactured for country use and not for exportation. It might be more easily averaged, what quantity of oats the mills of this county are equal to manufacture, than the quantity which they actually do, as there are none of them ever constantly employed; however it is certain, that they are equal to supply the demand of the country.

SECTS. 17, 18, 19, 20, & 21. *State of Plantations and Planting ; of the effects of the encouragement heretofore given to them by the Society, particularized in the list annexed. Of any Improvements which may occur for future encouragement, and particularly for the preservation of Trees when planted. Of Nurseries within the County, and extent of Sales. Price of Timber, and state of it in the County.*

PLANTING has only been attended to as ornamental, and is confined to demesnes, but generally executed in such a manner, as to ensure both profit and beauty. Many parts of the county, particularly in the barony of Armagh, are highly decorated

decorated with both old and new timber ; orchards are numerous with the small farmers, though from an unfortunate failure of fruit, for two or three successive seasons some years ago, many farmers, it is said to the number of two thousand, imprudently rooted up their fruit trees, and quite spoiled a large district, which before was celebrated for the number and beauty of its orchards.

I have already spoken very fully of the several species of trees, which are found in this county, and it is a happy reflection, that the attention of the gentry is much directed to the most profitable and agreeable pursuit of planting.

The legislature have wisely held out encouragement to the tenantry to protect and encrease plantations, and it will be found no less the interest of the landed proprietor to join his strenuous efforts for the encrease of this source of national wealth, and tenfold more so will be his individual profit.

Hedge-rows only are planted without success ; screens and clumps are so expensive, that their security is a matter of such importance as to ensure their preservation ; but hedge-rows are generally badly protected, and left to chance. Trees planted as quicks, at regular distances, and stuck in the breast of the ditch when the enclosure is making, and in every respect treated in the after management as the thorn-quick, which should by all means
be

be planted with it for an after protection, will be found a cheap and successful mode of rearing trees; the whole should be protected by a fence of dead thorn, till the young quicks get up strong.

A well established nursery, where sales are considerable, has been established near Armagh, and has furnished a great number of trees for the many demesnes in the neighbourhood. Young trees are also sent for from a great distance. Many quicks are brought from Dublin, and often are greatly damaged, if not quite destroyed, in the care of slovenly carriers, which makes them dear and expensive; at present their prices are more than five times as high as they were a few years ago; they now are sold in Dublin at one guinea per thousand.

Prices of timber in the county are, on an average, at the following rates:

| | | |
|-------|---|-------------------|
| Ash, | - | 3s. 6d. per foot, |
| Deal, | - | 2s. 6d. ———, |
| Oak, | - | 3s. 6d. to 5s. |

It is more usual to sell timber by the tree, which is valued as to apparent contents, for different uses in husbandry.

Some dealers in timber have it ready sawed for the purposes of various implements, for each of which there is a regular price.

| | |
|---|----------------------|
| Timber for a car, about | 20s. 0d. |
| —— for a plough, - | 6s. 0d. |
| —— for a harrow, - | 4s. 6d. |
| —— for a spade, rake, or fork handle, from } | 0s. 4d. to 8d. each. |

A car will be made for three half-crowns, a plough for three shillings, and a harrow for two shillings; a loom, when finished, is rated as worth thirty shillings.

On the whole, this county has a better appearance of wood than the neighbouring counties, though perhaps possessing less forest timber; but the number of small and neat enclosures, together with the numerous orchards, furnish a view of wood, which is interesting and ornamental.

If gentlemen, who were disposed to plant, would superintend the culture of their trees in their own nurseries, they would soon become skilful planters, and as their knowledge of the science encreased, so would their fondness for it. The expence of a nursery is small and gradual, compared with the bills of trees purchased from seedsmen; besides, the success of those reared at home is more certain, and, where there is a failure of a plant, it can be more conveniently replaced.

Premiums

Premiums adjudged by the Dublin Society, for planting in the county of Armagh, since the year 1786, where security has been given to preserve the same for ten years from the date of the grant.

| To whom. | For what. | Acres. | Date. |
|------------------|------------------------|--------|-------|
| Richard Jackson, | Enclosing plantations. | 10 | 1786 |
| John Ogle, jun. | ditto. | 10 | 1791 |
| Hugh M'Dowel. | ditto. | 10 | 1795 |

SECTS. 22, 23, & 24. Quantity of Bog; possibility and means of improving it; obstacles to it, and best means of removing them.

My readers who are acquainted with this county must well know, that the quantity of bog is insufficient for the general supply of fuel, from the circumstance of its being unequally distributed, and the immensity required for the numerous bleach-mills. In many parts of Armagh, turf bog is of a more certain revenue, than the best land could yield,

yield, by many times over. Our attention should rather be to encrease than to reduce its contents, until another source of fuel is resorted to for the linen manufacture.

In the first chapter, and sixth section, under the head *Bog and Moor*, the process of converting worn or cut-out bog to grass is fully described ; and this can be effected to great profit, and with small expence, after it has yielded the supply of fuel.

Of waste land, the small portions in Armagh are only to be seen in the mountains, which are gradually improving. Opening roads, building cottages, and furnishing lime at an easy rate, with a small rent proportionable to the value of improvements made by the tenant for a certain number of years, would soon bring these regions into civilization and profit. These districts have already the advantage of good markets within their reach ; and, if only roads were opened, they would repay the proprietor amply, and ensure to him a revenue, where there is scarcely any thing now yielded.

Many parcels of land, which by liming would be made equal to twenty or thirty shillings per acre in a few years, do not now yield three, or, in some places, even one shilling per acre. Long leases, at a fair rent, would here ensure valuable improvements.

SECTS. 25, 26. *Habits of Industry, or want of Industry among the People.—The use of the English Language, whether general, or how far encreasing?*

THE people of this county cannot be charged with want of industry. If they are ever out of work, it is certainly to be attributed to the want of employment. No surer proof of industry is required, when a man, who can at times earn five shillings a day at his trade from peculiar circumstances, will work with the same diligence, when perhaps he cannot earn eighteen-pence a day. Industry, not idleness, is the characteristic of the people; and, when trade is dull, they seek employment in the fields. The nature of the linen manufacture must always ensure an industrious race; for so much work can be performed by children, that they are more early employed in this line, than it has hitherto been thought worth while in agricultural pursuits.

The English tongue has long been the general language of the county, and is firmly established.

SECT.

SECT. 27. *Account of Towers, Castles, Monasteries, Ancient Buildings, or places remarkable for any historical event.*

IN the Baronial Survey, thirteenth chapter, a particular description of antiquities will be given, where they exist, whether of Pagan origin, which have not yet been noticed, or erected, since the æra of Christianity, for military or ecclesiastical purposes, and also any remarkable traditions, which will apply locally. The ancient religious houses of the county will be treated of in the Appendix.

SECT. 28. *Churches—Resident Clergy—Glebes, and Glebe Houses.*

THESE subjects are already reported in the third section of the first chapter, and may be again referred to in the thirteenth chapter occasionally.

SECT.

SECT. 29. *Whether the County has been actually surveyed; when; and whether the Survey is published?*

A PARTIAL survey of Armagh is shewn in the Down Survey, and so far has been found accurate, and well laid down. A map of this county was published by J. Rocque, in 1760, which was not considered correct. In this map are plans of Armagh city, and the town of Newry.

Another map of the county, from actual survey, was presented to the Grand jury in the year 1778, by Messrs. William and Conyngham M'Crea, which was the labour of three years. This map, and also Rocque's, hang in the Grand-jury-room. M'Crea's survey was made by the joint and voluntary subscription of the gentlemen of the county, whose names, and the respective sums contributed, are mentioned in the map. As there is but so precarious a tenure as a single manuscript for the large sums subscribed by the gentlemen of the county, and as they are sensible of the merit of the work, it is surely their interest to get it engraved, that being the only means of preserving so valuable a record. The new roads, made since the survey was taken, should
be

be first laid down, and other improvements might also be adopted.

SECTS. 30, 31. *Weights and Measures, liquid and dry; in what instances are Weights assigned for Measures, or vice versa?—The Weight or Measure, by which Grain, Flour, Potatoes, Butter, &c. are sold.*

LIQUORS are all sold by wine measure, as are all liquids. The sealed Irish gallon contains 217.6 cubic inches.

Oatmeal is sometimes sold by measure, in retailing small quantities in markets, as also are potatoes; but potatoes sometimes are sold by the sack in bulk, which must be against the purchaser, as doubtless the seller knows the contents of his own sack.

The corn-stone has 14 pounds avoirdupois.

The wool-stone, 16 ditto.

The feather-stone, 16 ditto.

The flax-stone, - 14 ditto.

The tallow-stone, 16 ditto.

The barrel of corn varies in its number of stones in different parts of the county; but, as the corn is always sold by the stone, it is of no account.

The

The barrel of Barley contains generally 16 stones.

| | | | | |
|----------------------|---|---|---|----|
| Wheat, | - | - | - | 20 |
| Potatoes, from 24 to | - | - | - | 32 |
| Oats, kiln-dried, | - | - | - | 12 |
| —, raw, | - | - | - | 14 |
| Malt, | - | - | - | 12 |
| Bran, | - | - | - | 6 |

Hides and butter are sold by the hundred of 112 pounds; coals by the ton of eight barrels; lime by the barrel of thirty-three gallons.

SECT. 32. *Of Mines within the County.*

THE only mines within the county, yet discovered, are of lead, and are in the vicinity of Keady, a small town six miles west of Armagh.

This mine is on the estate of the college of Dublin; the lands are held by the Earl of Farnham; the late Earl expended large sums in sinking and working it, but made no profit of it. It is rather wonderful, and indeed proves the value of these mines, that he was not a considerable loser, as he had no active partner to superintend works under ground, which he himself never saw. Since his death, the present Earl has discontinued the works, which his
father

father advised him to do, until he should have an active partner, or a good tenant. The vein is so rich and abundant, it would be well worth the notice of the monied adventurer, and might prove of infinite service to this part of the country.

CHAP.

CHAP. XI.

LIVE STOCK.

SECT. 1. *Horned Cattle.*

MR. BROWNLOW, of Lurgan, has introduced the polled breed of cows, and a bull; but there has not hitherto been any emulation amongst the gentry in the breed of horned cattle.

The horned cattle of this country are light, seldom exceeding three or four hundred weight, but the choice is made for milk, rather than for feeding; and, as the greater quantum of the milk is intended for the use of the family, and not for sale for dairy purposes, it is their business to select that strain of cattle, which gives the greatest quantity, without regard to any extraordinary richness in the quality of the milk.

It is doubtless well ascertained, that the Leicestershire and other breeds of horned cattle will fatten

to

to a greater size, and in less time, on the same pasture, than our native breed. It is also asserted, that the quality of their milk is richer than that of our native breed, and it is not disputed but the Irish cow yields more milk than the English. However, without venturing an opinion on this point, which is not generally admitted, it must be allowed, that the milk of the Irish cow is rich enough for the food of man. In this county it is only the redundancy of dairy produce which goes to market; and though the quantum from each farm is small, yet in the aggregate it is very considerable.

The milch cows of this county, on an average, do not yield in summer more than ten quarts per day, and about two in winter; for eight weeks after calving rather more, and for some weeks before springing much less.

The stock for feeding are chosen for bulk and bone, rather than for neatness, as feeders make most profit of the weightiest cattle.

So little ground can be spared for pasture, that the cow cannot yield the sufficiency of milk she might produce, if she was better fed. It is a commendable amusement for gentlemen to introduce a good breed of cattle; but, in the present occupation of this county, it cannot turn out to their advantage for the use of the country, as they would not repay the high rate they should be purchased at. The

hardy race of native stock are better calculated for the scanty pastures; it is only in demesnes that a sufficient supply of food can be furnished for weighty cattle. This subject has also been considered in the second and third sections of the eighth chapter.

SECT. 2. *Horses.*

HORSES are but very seldom bred in this county. Indeed the high price of land militates against portioning any of it to so precarious a purpose as brood mares; they are frequently purchased, at three years old, from Connaught or Fermanagh dealers. Those most in estimation are nimble and active, short-legged, and firmly put together; they are worked too early, oftentimes at two years old, and, being purchased for spring work, are dearer then than at other seasons. When the sowing season is finished, they are considered rather an incumbrance, and will be well sold if they bring the original purchase-money, their work repaying their maintenance. They are purchased, after the spring work, by dealers, who are residents in the neighbourhood, and fattened for the fairs by an unwholesome hasty process, and badly broke for the saddle. I have, in another place, reported the barbarities practised on
this

this noble animal, and the tricks which jockeys will impose on unwary buyers.

There is not a greater proportion of horses to tillage in Armagh, than one to every ten acres for the uses of tillage; but a number of horses are kept for the saddle for the linen business, and many more in the speculation of a profit in their sale, which is a favourable trade with almost all descriptions of people in this county.

The hardest breed of horses which they have is the Scotch poney, which for every purpose is excellent, and very easily fed; his cost, at fairs, from five pounds to seven guineas. He appears clumsy, from the continual roughness of his coat, and very long hairs; but, on a minute examination, he is a well-formed animal, with great strength of sinew; and, when he has been well kept, is, perhaps, stronger at four years old than any other horse of his weight or age. His colour is frequently dark iron grey, with large reddish spots, black, mottled dun, and few or none with white hairs.

The gentry in Armagh are extremely well mounted; but their best horses are not bred in the county, and are bought in at very high prices.

The native Irish *garron*, with slender bone, and remarkable for speed and hardiness, are reared in the mountainous districts. They are mostly in use about Newry, and on the borders of Monaghan county.

SECT. 3. *Sheep.*

I DO not learn that this has ever been a sheep county ; indeed, from the earliest recollection, it has been in nearly the like occupation as at this day. The sheep, which are natives, are very coarse and misshapen, and are both with and without horns ; they are of a light weight, and their wool is coarse, but, when brought down to richer pastures, the wool improves surprisingly.

Sheep-feeding is not pursued by the small farmer. The wealthy bleacher and man of fortune stock their demesnes with a breed, which are reared in Connaught, and yield a pretty tolerable supply for the markets in the neighbouring towns, after their own consumption. Their mutton is generally killed at from three to four years old, and will average eighteen pounds per quarter ; the small horned breed eleven ; those latter fat the soonest. The small farmer often buys a few sheep before shearing time, and will as quickly as possible dispose of them, after they have yielded the fleece. If he has a clover crop, he finds his account in it, and sells the sheep to a great profit, besides having the fleece. Average weight of the fleece of Connaught sheep, kept over
and

and shorn in this county, six pounds ; of native breed, five pounds.

Sheep bought in for winter feeding, at 25*l.* per score, will sell out in spring on an average of a guinea profit per sheep. The profit will be greater, if the ewe and lamb are purchased in spring ; the lamb will be sold in the latter end of summer, fat, and the ewe is held over on aftergrass till spring, or sometimes sold out at Christmas.

SECT. 4. *Goats.*

THE milk of this animal, whose food is never taken into account, is equal to one fourth of the cow's milk, but richer, and is very wholesome. They are usually confined on the tops of ditches, where they browse, and in a curious manner : A line of jack-cord is stretched rather slack, for the given distance of about ten yards, and confined by a stake or branch at either end, passing through a ring of iron of about an inch diameter, which is made fast to the goat's horn by a cord, which passes through a hole drilled through the horn ; by this means the goat cannot leave the top of the ditch, and has a pretty good extent to browse on. Goats are numerous, and quite at their liberty on the mountains.

When

When they rear the kid, she is allowed to stay with her dam during the day only. The morning's milk is for the family's use. Many of the poorest families are supplied with all the milk they consume by this most useful animal.

SECT. 5. *Hogs.*

THE breed of this county is quite of the common kind ; but Mr. Brownlow, of Lurgan, has introduced a breed of pigs from Berkshire, which will doubtless be of the greatest service to his tenantry, and the county at large. This breed will fatten to from three hundred to four hundred weight usually, and are easily reared.

The native breed are narrow, long legged, with sharp snouts, and are long in the sides ; indeed this last point is their only perfection. The Berkshire boar will greatly correct their deformity.

The Chinese breed is preferred by the gentry, but they are least profitable ; though they are easily kept, and fatten very soon, yet they are never weighty. The Berkshire are as prolific, and many times more profitable for market.

Young pigs now average half a guinea per head ; they were lately so high as a guinea each.

Pork

Pork varies from 1*l.* to 3*l.* per hundred weight. Newry is the great market for the sale of pigs; their price varies with that of potatoes, which are their constant food.

SECT. 6. *Rabbits.*

THERE is no established warren turned to profit in the county, that I have heard of. Stragglers are picked up in the ditches by poachers, and are hawked through the towns; the flesh is sold at from ten-pence to eighteen-pence per pair. Rabbit-burrows are sometimes protected by the gentry, but the stock soon become numerous and mischievous to an extreme, and are with difficulty banished.

SECTS. 7, 8. *Poultry, Pigeons.*

WHEN the cottages are so numerous, a great quantity of poultry must be reared. There is a good demand for fowl of all kinds, which are sold at a good price. Some poultry dealers ramble through the country with cribs, and purchase forward barn-door fowl for Dublin market, but the
profit

profit cannot be much, as the demand at home is so considerable. These speculators generally purchase their stock after the poultry have had the range of the stubbles.

Large flocks of geese are bred in the mountains, turkeys in the interior, which are always sold to the gentry when pouts; average price, from three to four shillings per couple; geese, two shillings and eight-pence per couple; barn-door fowl, twenty-pence per couple; chickens, from eight-pence to sixteen-pence per couple. Eggs are scarce, there is so great a demand; they seldom sell for less than nine-pence per dozen.

The wild-fowl, which are found in this county, have already been mentioned in the first chapter and eighth section; there are no regular prices for them, nor are they often exposed for sale. Pigeons are no article of profit in the county, but rather of mischief; they furnish a supply for the gentleman's table, and are kept as pets only in farmers houses.

SECT. 9. *Bees.*

ALTHOUGH the Dublin Society have offered premiums for the preservation of bees in the winter,
yet

yet in this county the premium has not been sought for, though there is a great emulation amongst the notable housewives in keeping over stocks and feeding them. The bees are suffocated about the month of October, and about three stocks in ten are preserved through the winter; a hive of honey will sell for from ten shillings to a guinea, or more, but mead is not as much manufactured as formerly, indeed scarcely at all in any considerable quantity or for sale. The study and management of bees, which formerly engaged so much attention, is now quite neglected; in the mountains they have the greatest number of stocks, and their hives are filled so rapidly from the sweet-scented herbage, which this district affords, that they frequently have two risers or scaps under them, before the stock is taken; these hives will sometimes weigh 40*lb.* or even 60*lb.*; they never suffer more than the second swarm from the same stock, which they prevent by rising the hive. A hive of bees will sell for from fifteen to twenty shillings, and any quantity of them can be purchased about this rate.

It has been recommended by the Dublin Society to remove the bees to a northern aspect in winter, to prevent their rambling in a gleam of sun-shine, after which the cold so benumbs them, that they can-

not

not return home and perish on the way. I have understood from a gentleman, who tried the experiment, that it proved fatal to the stock, and that those only, who had the warmest aspect and best shelter, were the soonest to swarm.

CHAP. XII.

GENERAL OBSERVATIONS.

THIS county raises provisions sufficient for her supply, and has a redundancy particularly of wheat and oats to spare.

A sufficiency of flax is raised in the county for the manufacture, but no seed is saved, which it is idle to say is not practicable, as it is generally supposed that from such flax fine yarn cannot be spun; but in Flanders, where the finest laces are made, we have the best authority, that the seed of all their flax is indiscriminately saved. The seed, which might be saved from an acre of flax, would average 10*l.* value; how great then must be the loss to the nation, that they import all they use?

There is not a sufficiency of turf fuel in the county for its manufactures, and culinary purposes.

This

This county has a capability of improvement to yield the farmer double produce by housing his stock, and converting his sorry pasture into green crop culture.

A great saving of labour and horses' work might be made by altering the construction of ploughs and harrows, and by remedying their defects.

The dangerous hills on the public roads might be cut off by changing the roads occasionally to the valleys, and in many parts, where the roads are composed of decayed argillite, they might be repaired with limestone, which would be lasting, and though more expensive for the present, on account of the distance, would ultimately be cheaper as being so much the more durable material.

The want of capital is less severely felt here than in any county of Ireland. The heavy discount between bank notes and guineas is an oppressive tax on the linen trade. Landed proprietors make no profit of the specie, in which their rents are paid; their agents only are the gainers.

On the whole, the morals and manners of the people are superior to those of the other provinces of Ireland, and, generally speaking, they enjoy more of the comforts of life, and exhibit a considerable share of public spirit and independence.

PART. III.

BARONIAL SURVEY INCLUDING THE ANTIQUITIES
OF THE COUNTY.

Preliminary Observations.

HAVING generally detailed the several matters of enquiry, in which some regard has been paid to the natural history, as well as to the rural and political œconomy of the county, I shall, in the following sections, consider each barony distinctly, in which the present state of the towns, and the ornamental improvements of demesnes, will be mentioned.

Were this work now presented to the public completely perfect, this matter might certainly have been better introduced under the several heads already considered, which embrace almost every subject of enquiry, but, as it is only offered as the
groundwork

groundwork or plan whereon a perfect statistical survey may be founded, it cannot therefore be too minute ; under general reports it is very difficult to detect error ; but, where the detail is given locally, *there* every reader, who is acquainted with the vicinity described, can at once discover omissions, and rectify mistakes. It is therefore for the more particular reference to each barony, and the accommodation of his readers, that the author perseveres in that mode, which he has adopted in the several surveys he has already submitted to the public, and which plan has been approved of by the Dublin Society.

SECT. 1. *Barony of Armagh.*

THIS barony is justly entitled to preeminence in the county, whether it be considered as to the superior quality of its soil, its greater population, or as being the seat of the metropolis of the county.

The soil is limestone, and it abounds with numerous quarries of this valuable fossil ; the lands are in good heart, the enclosures in excellent order, and the fields judiciously divided in proportion to the size of the farms ; the hedges are of white thorn, the country is thickly cropped, and the whole surface

face displays a close neighbourhood of neat and comfortable cottages.

Approaching the city of Armagh from the westward, or from the bounds of Monaghan county, the prospect is enriched with a considerable quantity of plantation; on the frontiers are the improvements of Glaslough demesne, with those of the Earl of Caledon, which extend into this county; from hence to the vicinity of Killyleagh village, as far as the eye can reach, the surface is beautifully undulated, and the small conical hills have their summits crowned with clumps of forest trees, and evergreens; these new improvements are strikingly interesting to the traveller, as he approaches towards the interior, and convey a chearful happy appearance.

This fine range of country, including the neat demesne of Elm-park, is in the possession of Robert Maxwell, Esq. and joins a great extent of lands, the property of the Rev. Henry Maxwell, and John Maxwell, Esq. The residence of Elm-park is low, and beautifully surrounded with plantations, which are arranged with very judicious taste.

The village of Killyleagh consists of but one long street, which is very tedious, as it stands on a very steep hill; the houses are well built of lime and stone, with a clean and neat exterior. This village is not remarkable for any trade, but on the
last

last Friday in each month a fair is held, principally attended by dealers in horses.

From hence, as we approach the city of Armagh, the soil, though still limestone, yet changes to a purple hue; from Monaghan bounds to this vicinity it is of a whitish colour, more easily becomes calcined, and is of a much more calcareous quality than the reddish lime-stone.

If its value in this respect is diminished, it is however considerably advanced in another instance, as it now approaches to a species of marble, and, the nearer we approach Armagh, this fossil appears of a beautiful and excellent quality, and has a greater variety of shade and colour; the prevailing hue is of a reddish brown, and not unlike Egyptian marble in the dispersion of its small blots and patches; the cross lines and dendrites are of a lively shade, and are strongly marked. Another species of marble found here is of a yellow ground, and the dendrites are of a deep red; a third kind is of a dusky brown, but takes the finest polish, and is faintly streaked with white veins, which are generally circular; and a fourth species has a ruddy hue, streaked and spotted with both yellow and white; the several kinds of this fossil, which are found in this county, are ranked under that description, which mineralogists call plum-pudding marble, from its resemblance to it in its patches. Many of the chimney-

chimney-pieces in Armagh, and indeed for several miles around, are of this native marble, but few of them display the hand of a masterly artist.

On the Blackwater river, which is the boundary of this county from that of Tyrone, stand two towns, which are both in this barony, viz. Charlemont, and Blackwater-town. They are remarkable as to the pleasantness of their situation, but have no respectable trade. The former town is connected by the bridge with the Moy, which has both a post and fair, but it is situate in the county of Tyrone. Until the act of Union, Charlemont was a borough town, in the patronage of the Earl of Charlemont, and returned two members to parliament; it is governed by a portrieve, and has also a military governor on the staff, with a barrack for three companies of foot. From this town the family of Caulfield take the title of Earl.

The Blackwater river forms a very beautiful and grand feature along the boundary, flowing between spacious and fertile banks, which are partially covered with plantation. This fine water first comes in view near the town of Caledon, as we approach from Monaghan borders, and from the handsome bridge, which here crosses the river; the prospect is from either side very interesting, whether we look to the highly improved demesne of Lord Caledon, which extends to the bridge, or down the

river towards Armagh, where the country is so fertile and ornamented with capital inclosures; the whole line of road from Glaslough to Caledon is very pleasing, comprising the finest views of Glaslough and Caledon demesnes. In this point of view, Caledon-house stands to great advantage, on a very elevated site, and exhibits a model of beautiful and modern architecture.

All this country, which I have described, yields the finest wheat crops.

The only town or village west of Armagh, and at about six miles distance, is Keady, where there is little else to recommend it, in its present state, than a very good church. Its natural situation is favourable, having a fine stream, the river Callen, intersecting the town. On this water are numerous bleach-greens and mills, from hence to Armagh; this appearance of wealth and commerce is very engaging, and the busy scenes on these banks are enlivened with many ornamental improvements. The bleach-greens of Messrs. Holmes are the most considerable in the district. The river Callen flows between lofty banks, contiguous to the village of Keady, or rather in a deep and narrow glen; in these banks are indications of several minerals, as lead-ore, manganese, and ochres.

The Earl of Farnham is proprietor of the very rich lead mines, which the late Earl worked extensively,

sively, near Keady. Samples of this ore are in the Dublin Society's museum.

The country in this vicinity, towards Monaghan, is wild and rude, but reclaiming fast. Land, within these fifteen years past, has nearly doubled in value, and is now set at the average rate of sixteen shillings per acre, though without limestone; it had been, within the memory of the present age, almost all in heath and absolute waste.

The city of Armagh stands on very high ground, in the midst of a finely improved and beautiful country. The river Callen flows at the foot of the hill, just below the town, on its passage to the Blackwater river, into which it is discharged near Charlemont.

The cathedral, which is on the summit of the hill, has a commanding site, and is a conspicuous object at a considerable distance. This edifice commands our attention, whether we consider its antiquity, or its preeminence, as being the metropolitan church of Ireland.

This church is said to have been originally built of willows, or wattles, like most of the primitive churches, before the use of stone and mortar building was known; from thence it was named *Drumsailech*, or, the church built of willows; or *Ardsailech*, the high place of willows: but Ware says this name refers to the vicinity of the town, which

was crowded with willows growing on the banks of the river Callen.*

Such was the state in which it was, when St. Patrick here fixed his see, Anno 445, and was the first bishop. This hill, or rising ground, being granted to him by Daire, a chief of the adjacent country, he changed the name of the place to Ard-magh, or the high place or plain. St. Patrick † founded the abbey for the regular order of Augustinian canons, Anno 457, which he dedicated to the apostles St. Peter and St. Paul, and which, for several centuries, was the most celebrated school for theology in Christendom, and, during the middle ages, was not only much resorted to by the natives, but also by the Anglo-Saxons from Britain. There existed another good reason for this place having been chosen by St. Patrick for the founding of his metropolitan see; as a royal residence is recorded to have stood in this neighbourhood, and also a famous

* This part of the river was noted for being the spot, where King Nial was drowned, who was succeeded by Malachi the first.

† See Ware's account of the bishops of the see; and see Jocelyn, the Lancashire monk, in his Life of St. Patrick, chap. 165. "He placed his archbishop's see in the same city, designing it for the primacy, metropolis, and mistress of all Ireland." And chap. 166; "He built the metropolitan church of Ard-magh for the good of souls, and for the good of that city and the whole kingdom."

famous city, the capital of Ulster, which was called Eamhaim, or Eamania, derived from *aem-huim-ue*, which signifies, the potent or noble city. It was said to have been founded by a Scotch prince, above two centuries before Christ, and was sacked and burned by Caibre Liffechar, a chief of Con-naught, in the fourth century.*

St. Patrick, after having remained for ten years in the primacy, resigned it to St. Benignus, and lived, in private, to see it descend to three successors, all of whom he nominated. He died on the 17th of March, 492, and was buried in the county of Down.

The reader who is curious to trace his successors, the bishops of Ardmagh, will find them recorded in Ware, with some curious historical annals, down to 1673, when Michael Boyle was in that year translated to Armagh; and another list of the archbishops of this see will be found in Beatson's Political Index, to the enthronement of Doctor Richard Robinson in 1765, who was afterwards Lord Rokeby, and whose munificence to the see and town of Armagh will record his memory to the latest posterity. His Lordship's successor was Doctor William Newcome, who was succeeded by his Grace the present Primate,

* Colgan says the ruins of this city were standing in his time; Mr. O'Connor places its building 353 years before Christ.

Primate, the Honorable and Reverend Doctor William Stuart, who numbereth the hundred and fifth bishop of Armagh.

A monastery was built here by St. Columba, Anno 610, which, with the town, was nearly consumed by fire, in the years 670 and 687, and was frequently plundered by the Danes, the inhabitants massacred, and the books, records, and treasures carried off by those freebooters, which has been an irreparable loss to the civil and ecclesiastical history and antiquities of Ireland.

In the year 1013, the bodies of King Brian Boromh, and his son Murchaid, with the heads of his nephew Conoing, and of Prince Mothlan his ally, who were slain at the battle of Clontarf, near Dublin, were removed to the cathedral of Armagh from the monastery of Swords, where they had been buried for five years. As this monarch and his family had been liberal benefactors to this see, they were interred with great pomp. The king himself was buried in a stone coffin on the north side of the church; and Murchaid, and the heads of Conoing, and Prince Mothlan, on the south side.

The archbishoprick of Armagh was not constituted till the year 1142, when at the same time were the others of Dublin, Cashel, and Tuam, by Cardinal Papirio, who was sent to Ireland by Pope Eugenius, with the consent of the king, dukes,
bishops,

bishops, abbots, and states of the kingdom, to reform the abuses, which had crept into the church discipline.

This cathedral was often burned from intestine commotions, and, on being rebuilt, was always enlarged, particularly by Patrick Scanlan, Anno 1262, who was then bishop. His successor, Nicholas Molessa, added several valuable gifts, bestowed his manor of Dromiskin to the see, and charged his manor of Tlomonfeckin with twenty marks annually towards the enlargement of the edifice.

The see of Armagh was valued in the king's books, in an extent taken in the 30th of Henry VIII. at 183*l.* 17*s.* 5½*d.* Irish money; but, by an extent returned in the 15th of James I., it is valued at 400*l.* per annum, and pays so much first fruits. It is rated to be at present worth 8000*l.* per annum.

The dignitaries are the Dean, Chanter, Chancellor, Treasurer, and Archdeacon. Of the vicars choral are two priests, one of whom was added by Primate Marsh, Anno 1702. In 1720, Primate Lindsay procured a charter to encrease the vicars choral to eight, and expended 4000*l.* in the purchase of property to encrease the estate of the choir. There is also an organist attending on the cathedral service. The choir is reputed to be superior to any in Ireland, and its discipline is most particularly attended to.

The

The cathedral, in its present shape, represents the figure of a cross; from the point of intersection a square tower is raised, from which branch off, at right angles, the four compartments of the cathedral. The elevation of the tower is well proportioned to the height of the roof,* and would be complete if a steeple was raised on it, which was intended, when the general repair was given to the cathedral by Primate Robinson; but, by the obstinacy of the architect, in opposition to the opinion of Lord Rokeby, the walls of the old tower were built on, which were afterwards found not equal to the support of a steeple, having failed in several places, which occasioned the finishing of the tower in its present form.

Within the aisles of the cathedral are some monuments; amongst the best executed is that of Doctor Drelincourt, who was dean of this see. An extensive burial-ground surrounds the cathedral, which is enclosed with a very strong, though not a lofty wall; and through it is made a very neat gravel walk, approaching the cathedral from the several entrances.

The

* This remark may appear erroneous, if this edifice is only viewed from the market-place *en passant*, as it stands on a very abrupt and bold hill, and, consequently, but a small part comes in view from the street, at its base, but from without the town it is seen to great advantage.

The city of Armagh is indebted to the spirited and munificent liberality of Primate Robinson, who was the founder, or rather the donor, of all the elegant public buildings, which it is so justly celebrated for, and of the rebuilding and planning the very capital streets, which adorn it, and make it very superior to all the inland towns in Ireland; and, by the care of Lord Rokeby, the permanency of his endowments was secured by several acts of Parliament obtained for that purpose. From his Grace's example, encouragement, and assistance, and very much indeed at his private expence, this most ancient city has been renovated into its present style of modern beauty, and its police is managed by wise and strict regulations.

After having given a general repair, with some additions of ornament, to the cathedral, Lord Rokeby's love of literature was displayed in founding a library, which is a very handsome public building, and well designed for the purpose, which he filled with the most scarce and valuable store of books, of ancient and modern literature; having bestowed on it a property, as a perpetual fund, for the encrease of the books, the repairs of the house, and the salary of a librarian, for whom are assigned a suite of very elegant apartments within the building. The revenue for this establishment is now a perpetuity, and yields 300*l.* per annum.

The

The observatory, which stands just without the town, is another edifice, of very elegant appearance, which owes its existence to his Grace's munificence. This he also endowed with a perpetual fund, which, with the lands annexed to it, is worth 400*l.* per annum to the resident astronomer, who has fine apartments, and a very elegant demesne. The observatory stands on an elevated site, and is well furnished with the most valuable and costly instruments, which this noble patron of the sciences furnished at no less expence than 3000*l.*

Immediately opposite this beautiful building, and at the base of a hill, on which it stands, his Grace erected a spacious and regular edifice for the endowed school of Armagh, which was laid down on so large a scale, as to acquire the distinguishing appellation of the College of Armagh, which it has since retained. It may be proper to remark in this place, that even these extensive concerns were only a small part of what his Lordship intended them to be; his great design was, to erect a university in this city, which should have been on the most extensive scale; and all his improvements and plans were intended as tributary to this grand scheme. It was a favourite object with this good primate, to encourage literature and the sciences, which this vast project would so amply provide for; but it was necessary to have the assistance of government in this respect,

respect, though he intended, had they seconded his laudable views, to have dedicated his own ample fortune towards its success. Whatever were the objections of government to this great national benefit, they did not immediately unite with Lord Rokeby, although they gave reason to expect, that the time was not remote when they might support it. After a long interval, Lord Rokeby at last despaired of being able to see his favourite object accomplished; but, in order towards setting it afloat, he bequeathed by his will 5000*l.* for that purpose, provided the plan was adopted, and the first stone laid within five years after his decease. He conceived that, as he left the matter to be adopted by the wisdom of the legislature, which he could not have the direction of when in their hands, it would be a national concern, and would require but small individual aid, which occasioned his limiting his bequest to 5000*l.* Had his project been adopted when he first proposed it to government, he would doubtless have bestowed on it the principal part of his fortune, as he was often heard to declare. The benefit of this valuable legacy has not been embraced, and the limited time has elapsed, without any step having been taken; of course it has reverted to the conditions of the will; nor is there any probability that his Lordship's views, for the founding of this seminary, will ever be adopted. The money he expended on the

College

College of Armagh amounted to full 4000*l.*, with which sum, and the funds for that establishment, the present elegant building was raised ; and the late Rev. Doctor Grueber, who had long ably discharged the duties of principal, at this time, at an advanced age, resigned on a liberal compensation ; and, by the desire of Lord Rokeby, the Rev. Doctor Carpendale, who had with great credit presided at the endowed school of Carrickmacross, was removed to this preceptorship, nor could his Grace have made choice of a master more eminently qualified for the discharge of this important trust, as the unanimous testimony of the gentlemen fully evince, who have been so fortunate as to receive their education under his careful superintendence.

The origin of this establishment will be found in the extracts from Harris's *Hibernica*, which are subjoined in the appendix to this work ; but the school was not actually endowed till the reign of Charles I., as appears from the statutes.

From the earliest accounts of literature in Ireland it appears, that the city of Armagh was famous for learning ; and church discipline was studied here with great exactness. It is said, so eminent was the College of Armagh for learned divines, that, in a synod, held in the abbey of Clane, in the county of Kildare, Anno 1162, which consisted of the archbishop of Armagh, twenty-six bishops, and numerous
abbots,

abbots, it was decreed, under a solemn act, that no student should be admitted a professor of theology in the national church, who had not a certificate of his having duly graduated in the College of Armagh. And, in the *Monasticon Hibernicum*, it is copied from the *Annals of Innisfallen*, that “ Roderic “ O’Conchobhair, king of Connaught, Anno 1169, “ to advance learning in this university, granted to “ the head master an additional annual pension of “ ten oxen, and bound his successors to fulfil the “ said grant, on condition that a public school “ should be there kept open for all scholars from “ every part of Ireland and Scotland.” In Sir James Ware’s *Antiquities of Ireland*, he quotes, on the statement of Florence M’Carthy, that the number of students at one time exceeded seven thousand.

The instances, which I have mentioned, of Lord Rokeby’s regard for the prosperity of Armagh were gratefully felt by the inhabitants, and called forth their public spirit in an eminent degree. New streets were built, and all the offensive obstacles to improvement, for which this city had been almost proverbially notorious, were removed; a strict observance of the police, and laws of the corporation, was enforced; the streets paved and flagged; lamps were erected, and the best houses were adorned with iron railing in front. An elegant sessions-house was built at this time, and also a very
handsome

handsome edifice for public assemblies, the profits of which were to be applied to charitable purposes. In this latter building the ball-room is sixty feet by thirty, with card and supper rooms on a large scale, and the kitchens and servants' apartments are suitably laid out. This building is not yet completed; I understand it has remained these some years past in its present state.

Lord Rokeby's purse was always ready to contribute to these laudable improvements, which were carried on under his sole direction, and proved his correct taste and judgment for all public works.

A very complete shambles, which are well enclosed, and elegantly constructed, were erected by him, and at his sole expence; and he set on foot the important work of supplying the town with pipe-water, which was not completed till after his death.

Lord Viscount Cremorne, who has a very fine property in this vicinity, handed over to the corporation the sum of 1000*l.* for the forwarding of this public work, which was by subscription lately completed. Pumps, at proper distances, are erected through the streets for public use.

The barracks are of modern date, and are a very handsome building, well designed, covering an extensive area, which is well enclosed, and stands on a
fine

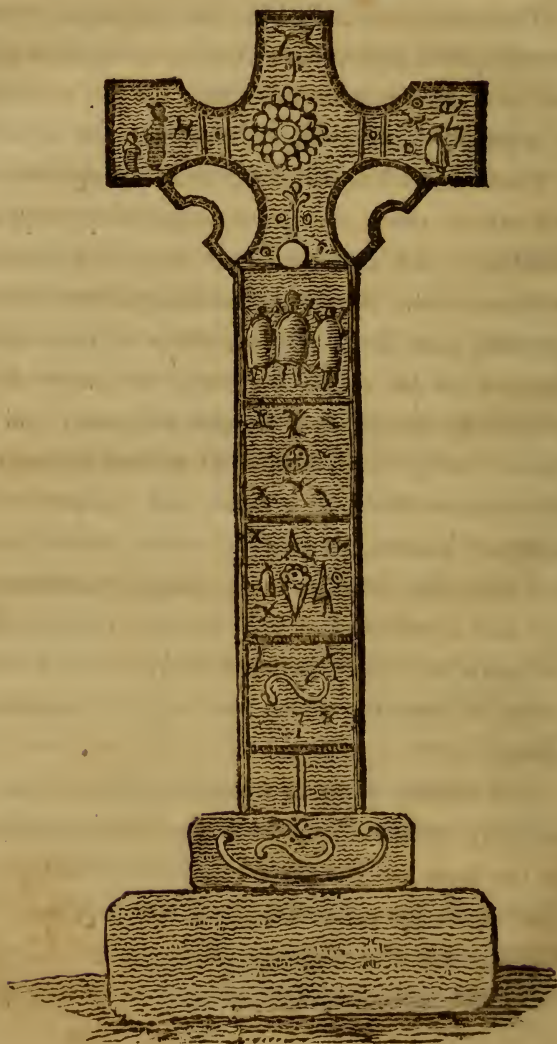
fine open eminence, fully commanding the county gaol, which is contiguous.

The gaol is also a modern and complete building, standing on a plain, with every advantage of good air, and proper accommodations for the prisoners; it is admirably planned, as to strength and security.

I must here remark that, in every approach to this capital town, the grand appearance of public buildings, and the numerous improved demesnes in the environs, convey to the stranger the most respectable ideas of this district, which are by no means lessened as he enters the city, the streets being principally rebuilt on a regular elevation, and the houses neatly slated, almost all of them having marble window stools, door cases, and parapets or eave courses. Indeed, in point of convenience of building materials, Armagh is very happily circumstanced, and is remarkably well situated, contiguous to the ports of Newry and Dundalk, for such necessities of supply, which we cannot command at home.

The market place is triangular, and is on the declivity of the hill, on which the cathedral stands; at the base, are the ruins of a market house, which was begun by Primate Bolton, but I do not learn that it was ever completely finished. The best front faced the cathedral, and between these two buildings

ings is the antique mutilated market-cross, of which an engraving is annexed.



It appears that the top of the cross has been damaged ; the symbolic subject is Christ's crucifixion between the thieves in old basso-rilievo ; the others are so much obliterated, that I leave their solution to more expert antiquarians ; they appear rather a kind of rude ornamental fret-work, than any distinct characters.

The trade of Armagh is principally engaged in the linen manufacture, the market for which is held on Tuesdays, and it is averaged that 7000*l.* are weekly expended for webs in this market.

In so extensive and well appointed a town, it is unnecessary to mention that every necessary and useful branch of manufacture, the woollen trade only excepted, is more or less engaged in, sufficient for the supply of its inhabitants and the country around ; but though severally respectable, they are not of any particular note, nor have extensive capitals engaged in them.

The present primate intends to present the town with an elegant market-house at his own expence, and as, in point of situation, the county court-house is deemed very inconvenient, and an estimate of a new and grand edifice, to the amount of 6000*l.* for this purpose, is now before the grand jury, his Grace intends the site of the present building for that of the market-house, which is certainly the

best place it could be erected on, from its central situation and contiguity to the market-place; the ruins of the present market-house are indeed a disgrace to the town, and ill correspond with any of its public buildings. His Grace also intends to promote, as much as possible, the sale of wheat in this market, which it is strangely deficient in, as the principal part of this grain, which is raised in the vicinity, is sold in Portadown market.

A very fine mall, or terrace, has been lately enclosed with a dwarf wall, dyke, and iron gates, within which is a neat gravel walk, encompassing a lawn, for the enclosing of which Lord Rokeby procured an act of parliament, and it is but lately finished. This work was completed by subscription, which will be returned, as the rent produced from the lawn in some years will repay both principal and interest, after which the property of the land is vested in the sovereign and corporation of Armagh, by which the town is governed; it is but justice to this body to remark, that by their attention the police of this city is well regulated, nor is the eye disgusted, nor the passenger annoyed with any of those nuisances, which too frequently disgrace many of the most respectable towns in Ireland.

Having faintly traced the princely munificence, the splendid liberality, and elegant taste of Lord Rokeby

Rokeby in the city, we see in the adjoining demesne of the primate a most magnificent palace, which he built for the residence of the archbishops of this see, and on this site he erected a very grand chapel for the use of the primate's family, suitable to so princely a residence.

His Lordship also ornamented and planted the demesne in the highest modern style, which the present primate has now occupied with the most improved systems of husbandry; indeed his Grace's farm-yard implements of husbandry, and mode of culture, afford a bright example to the gentry, of what their valuable demesnes could yield under judicious management.

In the primate's demesne a very elegant obelisk was erected by Lord Rokeby, in compliment to the late Duke of Northumberland, his Lordship's friend and patron, on which is engraved a suitable inscription: this pillar is very ornamental, and cost above 1000*l*.

In the unlimited extension of Lord Rokeby's views, which were suitable to his generosity, his Grace had contemplated the pulling down the present cathedral*, and erecting a very fine one at his

Y 2

own

* His Grace the present primate intends to build a chapel of ease to the cathedral in the vicinity of Armagh, contiguous

own expence, when the old work of the tower proved too decayed to support a steeple and belfry, and, had he lived, he would doubtless have accomplished it. If any public work had not a fund sufficient for its completion, after a subscription had been taken, to which his Lordship was always a liberal donor, he lent the remainder of the required sum, for which he would never receive any interest.

There is scarcely a precedent of such a magnificent fortune having been expended, during the life of the proprietor, on the improvement of his own estate for the benefit of his heirs; how eminently luminous then was the generous spirit of Lord Rokeby, who bestowed all these advantages and solid gifts to the public, from which his family could never derive any revenue? I do not presume to say, that a life of celibacy should be one of the necessary qualifications for a public employment of great emolument; for without a liberal spirit it will avail but little; but happy it is for the nation, when such trusts are honored in the care of so resplendent a generosity and correct taste, as the late Lord Rokeby possessed, and it is fortunate for the public, that those eminent virtues were not restrained
in

contiguous to the barracks and school, which is very requisite, as the cathedral is quite too small for the large and increasing congregation of this city.

in his Lordship by a matrimonial connection*. Had his Grace a wife or children, such a distribution of his fortune would have been an unjust and unwarrantable sacrifice.

The virtues of this great man are too well recorded to require panegyric. My readers will doubtless expect to learn, that a kind acknowledgment of his eminent qualifications and liberality has been paid in the erection of a splendid monument to his memory, and in these pages to see copied an epitaph suitable to his love of literature, displaying the grateful feelings of a nation for the general good they derive from his liberality; of the opulent city of Armagh for the local benefits she enjoys from his bounty; or of his Lordship's successors, to whom he bequeathed such an ample fortune; but sorry I am to say, that no such affectionate memorial is in existence.

Although Lord Rokeby's virtues will not be forgotten, when the frail monuments of human ingenuity have mouldered into dust, yet so long as this dutiful tribute, this just debt is unpaid, the strong contrast of his Grace's liberality will add
shame

* That his Grace was not an advocate for a life of celibacy is certain, but a disappointment in an attachment had in early life fixed his resolution of remaining single.

shame to the reproach, and confirm this disgrace either in a particular or in a general view.

Respecting this ancient see of Armagh, it is indeed a matter of surprize there are no public records. A few books or papers were purchased or procured from his friends by Lord Rokeby, which he bequeathed in such a manner, that they are not easily accessible, being left to the governors of the library in trust, the archbishop for the time being having power to take away any of them, provided he gives a receipt binding upon him and his executors; and in his will he adds these remarkable words: "*My intention is, that the librarian, and the governors of the library, shall be excluded from the examination of these manuscripts, and that the trust shall extend no further than to the means of their preservation.*"

The antiquarian must therefore arrest his curiosity; it would be highly improper, if not impertinent, to wish to make public their contents, when a man of such superior understanding had reason to confide them to but one person in existence, and which doubtless he had every right to dispose of as he thought proper, they having having been his private property. As the cause of this extraordinary concealment cannot be explained, it would be unjust, and ungenerous in the extreme to the memory of his Grace, were we to impute it to any
illiberal

illiberal motive, as to so base a principle his whole conduct through life was a direct contradiction.

The city of Armagh sent two members to parliament before the union, it now returns but one; the primate has the patronage of the borough.

The county infirmary is within the town, and is very punctually attended to; besides the regular county charge, it is maintained by very liberal subscriptions and some annual bequests.

A charter school was founded in Armagh anno 1758, to which the primate and corporation of Armagh gave twenty acres of land for ever, rent free, for the site and accommodation of the house. The first endowment of this charity was a gift of 40*l.* per annum, being a rent charge from Mrs. Drelincourt, widow of the dean of the see; it is now a noble institution, and the most extensive of any of the kind in Ireland.

In the vicinity of Armagh are the neat demesnes of New Holland, the seat of Mr. Holmes; Anneville, of Mr. David Bleakly; Rosebrook, of Mr. M'Cartney; Tullamore, of Mr. John Hickey; Nappa, of Mr. Johnston; and Elm-Park, where the Rev. Mr. Close resides, the rector of the parish of Keady.

Mr. Joshua M'Gough, Mr. Scott, Mr. Simpson, Mr. Graham, and Mr. William Hardy, have also small demesnes in this neighbourhood.

SECT. 2. *Barony of Turenny.*

THIS barony is but a narrow oblong strip, on the western quarter, which has very little to recommend it to particular notice; the culture is that already described common to the county, the soil is rich, and the farms are tolerably well divided. The southern extremity of this barony is mountainous and wild; from Armagh towards Tynan, a small town in this barony, there is a good limestone soil.

This town, which is situated on an eminence, is inconsiderable as to the number or neatness of its houses, but it has an excellent church with a handsome steeple; without the churchyard is a relick of antiquity, an oblong stone of about eighteen inches square and four feet long, set up on a large block stone, and capped with another, which is square, having its faces concaved, and this crowned with a smaller stone.

I could not discover any characters on this relick; the oblong stone is divided into square compartments, and had the vestige of some sculpture, probably a cross had formerly crowned it; it is however certain, that it has been mutilated.

The ruins of an antique castle are situate about one mile from this town. In this vicinity, are the neat improvements of Ballynametagh, the seat of Mr. Burgess; of Fairview, Captain Waring; of Mount Irvine, Mr. Irvine; and also the very elegant demesne of the Rev. Mr. Quin, the rector of the parish of Tynan.

The country from Tynan to Keady is now greatly improved, though but a few years ago the greater part of it near Keady was an actual heath. In the vicinity of Tynan in this direction, for three miles, the farms are divided and well fenced, and the farm-houses comfortable with numerous orchards; but, approaching into the Fews, it is bleak and worse cultivated; the lands are however in a progressive state of amendment; liming has been steadily gaining reputation, and revigorates the soil surprisingly; this valuable manure is not to be found immediately in this part of the district.

On the road from Tynan to Keady, is the neat church of Madden, and the elegant parsonage of the rector, Mr. Staples.

The village of Middleton is much larger than Tynan, though of but a wretched appearance. The property in this town and thirteen town-lands were bequeathed by bishop Sterne, who had been translated from the see of Dromore to that of Clogher, and the income was appropriated for charitable purposes,

poses, of which the Lord Primate, the bishop of Clogher, and the rector of Tynan, are governors all for the time being.* In this populous village is but one slated house; but just beyond the lake, which flows up to the village, a neat church, and a most excellent parsonage, have been lately built, where the Rev. Mr. Mee resides. This district is well supplied with turf fuel, and the chain of lakes, which bound the county here, flow into Glaslough lake, in the county of Monaghan.

In this neighbourhood, are some plantations made by Mr. Cross, and Mr. Evans, on their farms.

The lands on one side of Middleton are low, flat, and marshy; those on the other are hilly, and tolerably good. I suppose the whole district from Tynan to Keady and thence to Middleton, with a pretty extensive tract of country towards the Fewes mountains, thence to Glaslough borders, would average about 16s. the statute acre, but this district, excepting the absolute mountains, is the least valuable part of the county of Armagh.

SECT.

* The author could not learn the particulars of the charity, as the act of parliament, under which it was established, was a private act, and was never printed; it may perhaps be obtained against the next edition of this work.

SECT. 3. *Baronies of Upper and Lower Fews.*

THIS district lies immediately south of the city of Armagh, and is approached from thence through the village of Hamilton's-bawn, the road to which is hilly and gradually ascending; about mid-way is the small lake or bason, from which the town of Armagh is supplied with pipe-water, and, though apparently low in point of situation, yet it actually ranges with the top of the tower of the cathedral.

Near this lake, a search was made some years ago for minerals by a gentleman, who was very sanguine in his hopes of success; some lead ore was found, and presently after the miners came on a coal smut, a good deal of which they raised, but no vein of coals was discovered; this stuff now lies near the road side, and would be excellent for repairing the road, which here so materially requires it; this gentleman expended a considerable sum of money in his speculations, but has not yet reaped any success.

Hamilton's-bawn is a good sized and well built village, about three miles from Armagh; on the hill above the town are the ruins of a castle, which appear of great antiquity, and to the eye of an observer

server it must seem almost incredible, that this mutilated and decayed building was, but a few years ago, an established and regularly garrisoned barrack.

From hence to Market-hill the road is also very bad, and the country, though entirely cultivated and populous, is yet very inferior to the lands north of Armagh, which have a fine lime-stone, but in this direction there is not a particle of it.

Market-hill is a thriving town, the property of Lord Viscount Gosford; a neat sessions-house and several other good houses have been lately built; this town is the principal stage between Armagh and Newry, and here is a good inn.

Lord Gosford's family mansion of Gosford-castle just adjoins the town; the improvements are rather in the old style, but the demesne is in good order, enclosed with a strong wall, and a full grown screen, in which is some very fine timber. Near this town is Draper's-hill, which Dean Swift gave name to and celebrated in his writings; he also mentions Hamilton's-bawn in his letters.

From Market-hill to Newry, by Portnorris, the country is good, but very bleak; the turnpike road is a disgrace to the county, and, approaching towards Newry, the soil becomes poor and barren.

The county roads in the vicinity of Sir Walter Symmott's, and Mr. Reed's, of Ballymoier, are in
good

good repair, and these gentlemen's improvements have quite altered the face of this country.

In this vicinity the soil is good, and very improveable with lime; the large haggards shew more extensive farming, and, of course, there is less of manufacture. The principal grain raised is oats; more cattle are grazed here, than in other parts of the county; however the main pursuit is tillage rather than pasturage.

Of the soil and nature of the Fews mountains I have already spoken in the sixth section of the first chapter, under the head of mountains, and the principal management here is the rearing of young cattle. In this district Newtown-Hamilton is situated, between the towns of Newry and Castleblaney, and is a wretched stage. There yet exist, about three or four miles from this village, the ruins of a barrack at a sorry village called Johnston's-fews, which was erected to awe the bands of robbers, who infested this country above a century past; and at this place, there is a tradition, that a famous battle was fought between one of the chieftains of Louth, and O'Neil, a chief of Ulster, who was slain here with many of his people; some antiquarians have mentioned, that this chieftain was also called Black-beard, and some liberties were taken with him, at a feast, given on this spot, by the Louth chieftain, who attempted to singe his beard, which was the
grounds

grounds of the quarrel that was immediately decided with the loss of so many lives.

Near to this place are yet to be seen the lines of circumvallation of an encampment, above a mile and a half in circumference, where it is said the Irish army had hemmed in a large detachment of Cromwell's forces, and besieged them during an entire winter. This noted place is called Clogh-a-meather. The ruins of Black-bank castle are now standing about two miles from Newtown-Hamilton. A charter-school was established in the parish of Creggan in this barony; for particulars of which, see chapter 1, section 4, ecclesiastical division, Creggan.

The mean village of Baleek lies about mid-way between Newtown-Hamilton and Newry, and near to it is some indication of a slate quarry.

The whole line from Newry to Castleblaney is a great thoroughfare, on which is brought the whole trade of Cavan and Monaghan counties for the Newry market, but it is always in the most wretched state; the distance between these towns is but seventeen miles, and, though so short is the distance, it is yet a good journey to accomplish it in one day; the traveller must not only risque the failure of the best appointed chaise and horses, but must also run no small danger of having his bones broken in the attempt.

The

The demesnes in these baronies, which have not been before mentioned, are, Hockley, the seat of Mr. Shields; Cullaville, of Mr. O'Callaghan; Crossmaglin, of Mr. Ball; Carritt, of Mr. M'Can; Elizahill, of Mr. John Grier; Derrycheehan, of Mr. Andrew Trew; and Coronare, of Mr. Robert Hamilton.

The small village of Mohan is on the northern bounds of this barony; those of Cullaville and Crossmaglin on the southern bounds, near Carrickmacross; near the latter of these two villages is a small lake of the same name.

SECT. 4. *Baronies of East and West O'Neiland.*

THE extent of this district includes almost the entire of the northern part of the county, and approaches to within a very small distance of the city of Armagh. The more distant part has little or no limestone, but the nearer has a fine soil of this quality. There can scarcely be said to be any indifferent land in the whole district, and the greater part is a fine country, which cannot be excelled in Ireland for the purposes either of pasturage or tillage.

The soil of the northern division is rich, deep, and loamy; though not limestone, yet it is not wholly

wholly without this fossil, as on the manor of Brownlow-derry, the estate of William Brownlow, Esq. there is a limestone quarry, which however no advantage is derived from, on account of its situation in low ground, which is generally overflowed, and has a very great bearing of bank to be removed on the surface, before the quarry can be touched. The surface here is more inclined to be flat than hilly, and is rather, in this instance, a complete contrast to all other parts of Ulster, which I have seen; it is watered by several streams, which fall into Lough-Neagh. A review of the manor of Brownlow-derry will give a pretty clear idea of their management in this division.

This manor, which is the estate of William Brownlow, Esq. is all leased in so small divisions, as to average less than five acres, and a great number so low as three; all the farms are leased for three lives; excepting in the town of Lurgan, there is not a perpetuity on the whole.

The fields are well proportioned in size to the small plot of each farmer, and are neatly inclosed with quickset white-thorn fences.

Lime is the principal manure, and this process is well performed, though expensive, as the carriage is distant and tedious; grass land is always broken up with a potatoe crop, and generally the surface is limed two years before ploughing; flax
and

and oats in succession; barley is taken after a potatoe fallow, with a light sprinkling of manure; the land is then left in pasture, in the furrows left by the plough. The soil is throughout this division favourable to wheat, and the culture of this grain is very much encouraged, but they never fallow for wheat here, though within a mile or two of this district, in the counties of Down and Antrim, I have seen wheat fallows, but I understand it is rarely done so; great crops of this grain are raised through all this country mostly after potatoes, and the seed is trenched in. The proportion of tillage to pasture is full as four to five; little else but bottom meadow; they prepare the soil for wheat crops with great attention, and pickle their seed with lime, salt, and chamber-lie; they generally expect to reap one cwt. of wheat, for every fourteen lbs. which they sow; a liberal manuring of lime revigorates this soil in so much, that they reap six or seven corn crops without any intermission; indeed it only requires to be seen, to convince any farmer that it can be depended on for any purpose in husbandry. I have been well informed, that it is not unusual for an English acre to yield 350 cwt. of potatoes or 30 of oats, after being well limed. No oxen are employed here in draught. Horses plough with collars, and for the purposes of husbandry there are not more than five horses to

every sixty or seventy acres ; the stock rather sought here are milch cows ; no farmer is without one, and several have two or three since the culture of clover has been more in use.

The young cattle are sent to mountain farms to be reared, and are sold afterwards, principally of late years, to jobbers who purchase for Scotch markets ; this trade is carried on to a great degree, and is certainly no small encouragement for the rearing of stock, as it has assuredly been the principal cause of the immense rise on black cattle ; so great have been the profits of the jobbers in this trade, that they now speculate in all kinds of live stock, and export sheep, young horses, pigs, and even poultry.

This soil being so favourable to dairy husbandry, and the farmers fond of appropriating all the land they can spare to this pursuit, there is, of course, a considerable quantity of butter produced, which there is a good demand for in Lurgan, and a great quantity is purchased for Belfast market and sent there by Lough Neagh. The houses in this district are comfortable and neat, the walls kept white-washed, and the gardens adjoining prettily dressed ; the barn and cow-house are in general annexed to each dwelling, and an orchard affords shelter and ornament to the whole. The fuel here is turf, which is more abundant than in most other parts of
of

of the county ; yet it is not cheap, but yields large sums to the occupying proprietors. I have already noticed one tenant on Mr. Brownlow's estate, who realizes above 1000*l.* per annum on turf bog only. The parts of bog, which are cut out, lie extremely well for draining, and could easily be converted to fine meadow land ; on the whole, the lands are in good heart, the population is immense, the houses neat and comfortable, fuel convenient, markets excellent, corn-mills well supplied with water, and the roads in general here, and in Armagh barony, the best in the county.

The town of Lurgan, which has also been called Little England, though I could not learn the reason, or discover the analogy, except its being remarkable for cleanliness, is composed of one principal very long and wide street, which is in one place, near the church, greatly disfigured with a number of very old miserable houses, which are strangely built in its centre, and quite spoil the effect it would otherwise have. Here is an excellent house, which if any, is the only building that should be suffered in the centre of a street ; the entrances to this building have been ornamented with iron gates, and in the apartment overhead the sessions have hitherto been held, but a very neat court-house and bride-well have been newly built, and are now nearly finished.

Many of the houses in this town are covered with shingles, and it is surprising to see this mode adopted, even in some handsome modern houses.

The church is very spacious and well built, and ornamented with a very elegant spire, and an excellent organ. A poor school is supported by an annual charity sermon and liberal subscription, in which seldom less than 200 children are educated.

This town is situate in the parish of Shankhill; the Rev. Mr. Waring, the rector, resides on his estate in the adjoining county of Down; this gentleman^s receives his tithes by a modus of 10*d.* per acre, for which he agreed with his parishioners; the tax is chearfully paid, and so it should, being extremely moderate.

The trade of Lurgan consists wholly in articles of the linen and muslin manufacture, principally^s cambricks, lawns, diapers, and diaper damasks, in which it will average from 2,500*l.* to 3000*l.* weekly sales. Spinners for these fine articles draw their yarn to twenty or thirty dozen, of which lawns and cambricks are made, and these webs sell brown at from twelve to fourteen shillings per yard; fine diapers for table linen are also manufactured in this vicinity; but in this kind, the yarn is always the property of the merchant, who gives it out to the weaver on task work; this man will earn nearly double wages with any other description of weaver.

There

There is some decrease of the linen trade to be attributed to the weavers having lately become fonder of working cottons in the muslin branch, as they have better wages, but perhaps the truer cause of the decline from any other period is the flimsiness of the materials, which are by no means equal to their former quality. The merchants have ineffectually strove to counteract this falling off, through a want of unanimity, and they must now be content, if the warp alone is of good yarn, which is not always the case; we may also justly attribute, in some degree, this decline to the bad character, which our manufacture acquired by the many packages, which were returned from America, in consequence of the late destructive alteration in the bleaching process; and it must be also remarked, that the extraordinary rise on labour, since the years of scarcity, have tended in no small degree to depreciate the trade, and must have the like effect probably for a great while to come.

I have chosen this section for the remarks on, and causes of, the decline of the manufacture, because it is in this part of the county that the injury has been most material, and that fine goods compose the principal stock; in places, which are more engaged in the coarse manufacture, the effects have been less severe, and the stagnation but temporary.

Mr.

Mr. Brownlow is endeavouring to establish a wheat market in Lurgan, which bids fair for success, from his encouragement of allowing it toll-free, and the great quantities of this grain which are raised in the vicinity; it must only require buyers to establish a market.

Throughout the environs of Lurgan labour is high, even in the winter season; in summer they pay sixteen pence per day, and sometimes so high as two shillings and two pence; but, on the average of the year, nearly double profits accrue from the loom, on which account almost every labourer has a knowledge of weaving; very few labourers are employed by the year in the field, except in Mr. Brownlow's demesne, where those, who have constant employment, receive ten pence in winter, and thirteen pence in summer.

In this division there is no timber for sale; excepting for implements of husbandry, foreign timber is more generally used, and is brought down the lake from Belfast; this navigation is of the first importance to this town.

Banfoot-ferry is just at the mouth of the river Blackwater, where it is discharged into the lake; the country in this direction is low, flat, and marshy; the distance between the mouths of the Ban and Blackwater rivers is but trifling, they are both comprised in one view from the lake.

Mr.

Mr. Brownlow's demesne, which consists of 300 acres, adjoins the town of Lurgan, and is very well improved, and inclosed with a capital stone wall; the mansion is a very antique castle, and has received many additions since the original walls were built, as mentioned in the Appendix. The demesne, though very beautiful, yet corresponds with the antiquity of the castle, in the many inclosures into which it is divided, and is highly ornamented with a fine sheet of water, which is covered with swans, cape-geese, wild ducks, and a beautiful variety of water-fowl; around this lake is a pleasant and neat gravel walk, decorated with elegant plantations, and always open for the recreation of the townsfolk. The parks are well stocked with deer, and numerous hares sport through every part of the demesne. Mr. Brownlow has set a very laudable example, in introducing the improved system of husbandry. I have not seen a finer field of turnips than has been sown here in drills, and they were extremely well hoed. Mr. Brownlow is also provided with a Scotch plough, drill barrows, barrows, and several approved implements; his imported breed of Berkshire pigs are uncommonly fine, and will be a real service to the county; a Leicestershire ram and some elegant ewes have been lately added to his stock, and also a bull and some heifers from Scotland, at a great expence.

I must

I must here acknowledge this gentleman's very polite acquiescence in contributing to furnish the Dublin Society's museum with a valuable assortment of the natural curiosities of Lough Neagh, which he had collected.

The neighbourhood of Lurgan is well supplied with corn mills, and near Aughalee church, which is at four miles distance, a flour mill has been erected.

The country from hence to Portadown is in high population and improvement; the entrance into this town from Lurgan gives a respectable idea of its wealth and the value of its local situation. The Ban navigation to Lough-Neagh crosses the road; the ware-houses on the banks of this river, and the numerous barges, display a considerable trade, with which the large brick houses and well assorted shops fully correspond. This town is on the estate of ——— Obens, Esq.; a corn trade is very well encouraged here, and Mr. Phelps is the proprietor of an extensive porter brewery.

From hence to Rich-hill the county is no less populous, and the lands are in great improvement; the people shew every appearance of ease and wealth; an instance may be observed of their superior enjoyment of the necessaries, if not the comforts, of life in the numerous grocers shops in this whole district; within every mile on all the roads in this country we meet with two or three of them; perhaps

haps no county in Ireland is better supplied with market towns than Armagh, and yet in every neighbourhood are those depots of the small luxuries of the people; a sure proof of the superior wealth, and, let me add, of the civilization of the inhabitants.

The features of the country, in this district near Rich-hill, now change to an undulating surface, and the open champaign view is quite obscured. The town of Rich-hill, which is on the estate of William Richardson, Esq. is not extensive; its importance consists in its linen market, whose weekly sales will average 1500*l*. and here is a very excellent market-house. The appearance of the town is interesting, which is considerably encreased by the elegant demesne of Mr. Richardson, whose residence is in full view from the street. This castle is also antique, and seems to have been built about the same time as that of Lurgan; indeed the mansions of the principal gentry of Armagh appear to be all of the same date. This demesne is well enclosed, and the soil is really excellent, with a good stock of full grown timber, and some very fine young plantations. The town of Rich-hill is situated on high ground, and is four miles *N. E.* of Armagh. From hence, a closely improved country mostly in demesne, and charmingly wooded, is now within our view; the church of Kilmore stands to great advantage, and
has

has a fine and striking effect, near to which is the seat of Mr. Joseph Atkinson.

The demesne of Castle-Dillon, the seat of Sir Capel Molyneux, Bart. is within one mile of Rich-hill; the lands are very fine, and the improvements modernized with much taste. The house is situated low, and very old fashioned, but the offices are modern, and well built.

The demesne, which is walled in, is highly ornamented with forest trees, and has a handsome sheet of water overflowing a low marsh, which is extensive, skirting the base of a hill covered with young plantation, and on the opposite side of the approach is contrasted with a wood of full-grown oak or ash.

The approaches are extremely well planned, and all persons are permitted to pass through the demesne, which shortens the road full one mile and a half.

The late Sir Capel Molyneux erected an obelisk, just adjoining the demesne, to commemorate the services of the volunteers of Ireland; being situated on very elevated ground, it is now a noted landmark. This pillar is sixty feet high, and the base twelve feet square. On a black slab in front is the following inscription:

“ This Obelisk was erected by the Right Hon.
“ Sir Capel Molyneux, of Castle Dillon, Bart. in
“ the

“ the year 1782, to commemorate the glorious
 “ revolution, which took place in favour of the con-
 “ stitution of the kingdom, under the auspices of
 “ the volunteers of Ireland.”

This same gentleman, whose patriotism was so well known, erected another obelisk, to commemorate the establishment of the order of the Knights of St. Patrick in Ireland.

The roads are very excellent, the enclosures elegant, and the country in the highest state of fertilization from hence to Loughgall village, in which a fine new church has been lately built. The incumbent, the Rev. Mr. Bissett, resides in an elegant parsonage just adjoining. The higher part of this village is the most modern, and is very superior to the low ground. The demesne of Drummilly, the seat of Colonel Cope, overlooks Loughgall; and the antique long avenues, of fine timber, extend to the lake, which skirts the village. The mansion of Drummilly consists of three lofty square towers, connected by two retiring faces in a right line, and has a clumsy and antique appearance.

The modern improvements are at the rere of the demesne, and the bog is shut out by an extensive belt of plantation, which will form a very fine screen, and have a grand effect, after a short time. A very active and attentive spirit of improvement is
 visible

visible in this demesne, which enjoys no small capabilities.

The other demesnes in this division are, Wawkinshaw's Grove, the seat of Mr. M'Craight; Churchill, of Mr. Verner; Harrybrook, of Mr. Harden; Clantelew, of Mr. Obrè; Summer island, of Mr. O'Donnel; Drummast, of Mr. James Hardy; Mahon, of Miss Workman; Fairlawn, of Mr. Lawson; Carrick, of the Rev. Dean Blacker; Knockamuckly, of Mr. John Fivey; Lilo, of Mr. Robinson; Silver-wood, of Colonel Cuppaidge; Springfield, of Mr. Waddell; and Waringstown, of Mr. Magennis.

In several of these demesnes a very rapid progress is getting forward in improvements, particularly in plantation. In this respect there appears a spirited emulation amongst the gentry.

From Loughgall to the city of Armagh, the country is in the highest state of improvement; the soil is a rich limestone, and this district abounds with numerous quarries of this valuable fossil. I should have mentioned the village of Maghery, in the northern division, situate near Lough-Neagh; it is only remarkable for a good fair of horses and young cattle; the most noted is held on the 24th of June.

SECT. 5. *Baronies of Upper and Lower Orior ;
including some curious and interesting particulars
of the Lordship of Newry.*

IN this extensive district, which comprizes nearly a third of the county, the surface is hilly and mountainous, intersected with numerous streams, which principally are discharged from small lakes into the Newry river, and whose waters are constant supplies for several bleach and corn mills.

The soil of this district is rather light, and not limestone, yet brisk and tilly, yielding excellent crops from the application of lime.

The town-parks in the vicinity of Newry, which have been reclaimed from being some of the worst land in the county, will now frequently produce five tons of hay from a plantation acre, a proof of the capability of the soil, if judiciously cultivated.

The natural stone of the county is grit and free-stone, and is found of different qualities, of the extremes of hard and soft stone, both in rocks, partial quarries, and loose boulders ; and this approaches at length to a complete granite in the highest grounds.

The patches of bog are numerous, and are capable of being levelled and drained, as the falls are very
good.

good. The mountains, which cover a considerable tract towards the southward, are capable of improvement by liming; yet this manure is at a great distance, which seems to be a material obstacle to their reclamation. Notwithstanding this disadvantage, tillage gradually creeps up their sides; and there are few places that are not accessible to young cattle, and yield a wholesome, though coarse herbage.

On a general average, perhaps three-fourths of the culture of grain are in favour of oats; the remaining quarter is occupied with barley and wheat crops; of the former grain ten parts to one in extent of acres, and, indeed, generally in quality also.

Limestone is carried from eight or ten miles distance, at the cost of four shillings per ton. This mode, though more expensive, is preferred to that of purchasing it in a caustic state, as it drains less ready money, owing to their own labour, and that of their horses; and their fuel, which is considerable, is never taken into account.

Though the wheat crops are prolific, yet the grain is very inferior to that produced in the wheat countries of Ireland, which I attribute to its being always raised here in a potatoe fallow. But flax is a favourite crop; and only as much potatoe ground, as they do not reserve for this culture, is occupied in corn crops.

Their

Their partiality for the business of the linen manufacture encreases, as the additional number of looms will prove ; but they are much less engaged in weaving in the southern parts of this quarter, than in most other parts of the county ; their redundancy of flax is carried to the interior fairs and markets, where there is a steady demand for it, as its quality is sound and good.

The principal town connected with these baronies is Newry, the smaller part of which, with some of the lands of that lordship, are within our limits ; the river being the line of division between this county and that of Down, where the remaining part of this extensive lordship and great commercial town is situated ; but I shall reserve my remarks on this subject for the conclusion of this section ; and I come now to speak of the most considerable town within the district of Orior, which is Tanderágee.

This town is about eight miles east of Armagh, possessing some very capital advantages, whether we consider its natural situation, or other matters of material moment. As to the former, it can scarcely be excelled ; standing in a fine, rich, and beautifully improved country, and in the vicinity of the most charming parts of the county of Down. Its contiguity to the Newry canal is no less favourable, which flows within a mile of the environs, and affords it all the advantages of trade with that commercial

mercial town, and also with Belfast ; and the lands of this vicinity have, by the same conveyance, the benefit of procuring abundance of limestone, on easy terms, which so powerfully fertilizes this soil.

The country around is thickly inhabited by wealthy bleachers ; and the small farmers, who are very comfortable, are all engaged in the linen manufacture, so that it became no difficult matter to have a market established in Tanderagee, which was soon numerously resorted to ; insomuch that, at some times, the weekly sales of linens have amounted to the enormous sum of 7000*l*. The trade is very considerably in fine linens, and some lawns and cambricks are offered here for sale. This flattering prospect of such a respectable market was not of long duration, and that short period of its importance was occasioned by an unusual demand in the trade. The average sales are now, from the concurring authority of the most respectable merchants who frequent this market, about 2000*l*. weekly.

In the winter season there is a considerable quantity of beef brought to this market, the hides and tallow of which will often amount to 500*l*. weekly.

This town is on the estate of Colonel Sparrow, whose demesne fronts the principal street, and immediately adjoins it. The approach to Tanderagee from the county of Down is really charming ; the
neat

neat appearance of the town, its gradual elevation from a valley, through which a beautiful stream winds between lofty and undulating banks, which are thickly wooded on the one extremity, and the demesne which on the other crowns the summit of the hill, afford a pleasing prepossession to the traveller; nor are his expectations balked in viewing the town and its vicinity; every place corresponds with this engaging picture.

The demesne of Tanderagee had an immense quantity of full-grown timber, which has lately been greatly diminished; but a sufficiency remains to decorate the bold and abrupt eminences, which it has been justly celebrated for. Nature still triumphs in her display of wild and irregular charms, which are of that description that, we should suppose, would rather be injured than improved by modern innovations.

The present proprietor has added some plantations, to supply the timber he has felled, with an infant nursery in good management, and he has already nearly completed a very capital and extensive garden.

In the hot-houses I observed a mode of procuring shoots from plants, which seems worthy of particular attention. A tin vessel, which resembles a porringer, and will hold about three pints, is constructed so as to open with a hinge in the side, being divided

A a

into

into two distinct parts, as we may conceive could be done by cutting a porringer through both sides and bottom, and separating it into two equal pieces, which might be connected again with a hinge in the side ; in the centre of the bottom, through which the cut has been made, is a circular hole, large enough to admit the branch of the fruit-tree, from which roots are to be forced. This vessel, or cannister, as it is called, being unhinged, is made to embrace the branch, and, the sides of it being secured by a clasp, it is filled with a compost, of which I could not learn the proportions, but the materials consist of cow-dung, virgin earth, and turf-mould ; this being attentively watered, the branch is exposed to the glass, so as to have all the power of the sun, which, together with the artificial heat of the hot-house, will soon have the effect of forcing out roots and filaments ; these fibres can be easily examined by opening the cannister, and, when sufficiently strong, the branch is cut off just below the vessel, having now a complete root shot out, and it is placed in a pot with its original compost about the root. This plant, after due nursing, is trained against the glass, or the wall of the hot-house, in the usual manner ; the effect being exactly similar to that of striking roots from layers of branches. The plant, which is thus acquired, is termed a water-set, and, whilst in the process of striking out
its

its roots, is still drawing sustenance from the parent stock; this is an easy and ingenious mode of propagating scarce and valuable plants. Near Colonel Sparrow's demesne, is the elegant glebe and parsonage, which, for above forty-five years, was the residence of the late Reverend Doctor Lester, and which, by this gentleman's great taste and liberality, has arrived to its present degree of improvement.

The farms on this estate are very small, and the population immense. The average size of farms is under four acres, and the proportion of inhabitants nearly seven to a house; they hold their tenures under one life only. Limestone is distant about six miles from the nearest quarry by land carriage, but they can be supplied on better terms by the Newry canal. Lime is their principal manure; they frequently spread the lime on lea ground, as I have remarked in other parts of this work, and they suffer it to remain on the surface, perhaps three years before it is ploughed in, or as long as they find this top-dressing serviceable to the grass, calculating, that by its effects on the soil it is now matured for cropping with grain; and experience has convinced them, that in this idea they are not mistaken; a liming is however seldom repeated above once in ten years, so that we may judge how little land is appropriated to grass; their tillage consists in the

A a 2
culture

culture of potatoes, flax, and oats principally, and they have a resource in the low-lands and bottom meadows for hay; the meadow is taken by the acre, and the hay is carried off by the purchaser after being three weeks made, or is forfeited, that the after-grass may be preserved. Average price of good meadow six guineas per acre; of an inferior sort, from 3*l.* to 4*l.* The rent of flax and potatoe ground, for a crop of each, two seasons, five guineas per acre, and a rich dunging; the proprietor of the ground taking possession as soon as the flax crop is off.

The following very liberal premiums have been offered by Colonel Sparrow to his tenantry, and each house on the estate was served with a printed copy of them, stipulating the conditions, &c.

1. Three guineas for the largest and best crop of clover or vetches, in proportion to the size of the farm, to be ploughed in after the second cutting.

2. Two guineas for the second best ditto.

3. Three guineas for the largest and best crop of turnips, in proportion to the size of the farm.

4. Two guineas for the second best ditto.

5. Three guineas for the largest quantity of potatoes, which shall be altogether planted, moulded, and turned-out with the plough.

6. Two guineas for the second best ditto.

7. Three

7. Three guineas for the neatest and cleanest farm-house, offices, and yard, in proportion to the ability of the tenant.

8. Two guineas for the second best ditto.

9. Three guineas for the farm, which shall appear to be best cultivated, fenced, and cleanest of weeds, in proportion to its size, and the ability of the tenant.

10. Two guineas for the second best ditto.

11. Two guineas, and eight-pence per pound, for the best cheese made upon the estates.

12. One guinea, and six-pence per pound, for the second best ditto.

13. An oak loom, to the journeyman weaver, who shall have wove the greatest number of pieces of yard-wide linen, of, or above, the set of a twelve hundred, within the last twelve months; to be certified by his employers.

14. An oak loom, to the weaver's apprentice, who shall have wove the greatest number of the above; to be certified by his master.

15. Twenty guineas to the person, who shall plant the largest and best orchard. One half to be paid when the trees are two years planted, and the remainder when in bearing.

16. Fifteen guineas for the second best ditto.

17. Ten guineas for the third best ditto.

18. Three guineas to the tenant, who shall most industriously and beneficially employ his children during

during the year; boys under fifteen years, girls under fourteen.

19. Two guineas to the second most deserving ditto.

The river Ban joins the Newry navigation within two miles of Tanderagee, and from thence, with the Cushier river, flows into Lough Neagh, making in this course about eight miles.

The great advantage of this canal is the constant supply of sea-coal brought from Newry, at 4s. 8d. per ton freight. The numerous bleach-mills in this vicinity could not be supplied with turf, this fuel is so scarce in this district. From Tanderagee to Guilford there is the closest neighbourhood of opulent linen merchants; and, for a great extent indeed, almost the whole of the country is a continuation of demesnes and beautiful improvements; many of these are held by the respectable society of Quakers, and their establishments in the linen trade are the most considerable in this country. A manufactory has been erected here for vitriol, which is indispensable in the bleaching process, and is the joint property of several merchants, who have a large capital sunk in this concern, from which a sufficiency of vitriol is made, equal to their demand.

This beautiful country lies low, and is greatly inconvenienced by the precarious inundations from
Lough

Lough Neagh, which have sometimes extended so far as eight miles from the usual shore, branching into the direction of the county of Down. In this range, whether towards Lurgan, Moira, or Newry, the lands lie low, and present an uncommonly fine plain; and, in some lines of this view, culture is brought to higher perfection than I have ever witnessed; particularly that part, which lies in the county of Down, in the vicinity of Guilford, Hall's-mill, and Waringstown, is truly charming. The delightful improvements in this view, and the verdure of the lands, are finely contrasted with the white webs, which cover so extensive an area, this whole country being occupied by wealthy bleachers.

On the western borders of Orior, tracing towards Newry, stands the old village of Clare, where an excellent fair is held on the 12th of May. This village is on the estate of Colonel Dawson, whose demesne of Clare-castle adjoins; the mansion is one of the most ancient in the county, and is now in the occupation of Mr. Leigh.

In this direction is also the village of Portnorris; from hence towards the southward, the country partakes more of the features of the Fews district, whose mountains extend into this barony, and join the Doobrin mountains, which are only here distinguished by that name, and are a part of the same
range,

range. In this line is the small village of Camlough, if it deserves even the rank of a village, so named from the celebrated lake of Camlough, which is worthy of particular notice, on account of the rapid stream, that flows from this small sheet of water, and performs more actual work in a line not quite two miles, than can perhaps be equalled in any part of Ireland; and the numerous works on its banks furnish an eminent instance of the superior spirit and industry of the people in this province, who so eagerly seize every natural advantage for furthering and encreasing their trade.

This stream first supplies the corn-mill of Camlough, which is extensive in comparison with this description of mills in this country, from whence it courses to Mr. John Duff's very capital bleaching concerns, which are capable of completing 14,000 pieces in the year. Mr. William Pollock's works, where 18,000 webs can be finished, are next amply supplied by this stream; a short distance hence, on their banks are erected the most capital boulting-mills in the county, equal to manufacture 10,000 barrels of wheat, which are the property of Messrs. Jackson and Co.; on the next fall a good flax-mill is erected; and, at a short distance from it, another corn-mill; from thence this same stream flows to Mr. Joseph Campbell's bleach-mill, capable of finishing 18,000 webs; the next
works

works on the banks of this busy water are, the flour-mills of Messrs. Christopher Reed and Co., but I have not learned their capability ; near to these concerns is another fall, which is intended for some extensive manufactory, I understand in the pottery- or foundery process ; below this are two other falls, the property of Messrs. Atkinson and Co., on one of which they have erected a bleach-mill, and are about occupying the other in the same process ; here it joins the demesne of Derrymore, the seat of the Right Hon. Isaac Corry. The very fine improvements of Derrymore shew the correct and elegant taste of Mr. Southerland, who planned them, and superintended their execution ; this demesne, when Mr. Corry undertook its improvement, had great natural capabilities in respect of beauty, and he has persevered in reclaiming a region, which was a bleak and almost barren waste. The young plantations already display a fine appearance of wood ; the approaches are extremely well planned, and the cottage, which is as yet the only residence, is, without exception, the most elegant summer lodge I have ever seen. The grounds here lie high, and their improvements will have a fine effect from Newry as the plantations get up.

Tracing a continuation of the borders of Orior, we must now extend more to the westward, where we meet with little worth our particular notice, till
we

we arrive at Fork-hill, where a good barrack is erected and constantly garrisoned. This village and manor was the estate of the late Richard Jackson, Esq. whose seat adjoins, and I must remark, that this gentleman bequeathed this very considerable property for charitable purposes after a most extraordinary manner.

I cannot convey the sense of this uncommon bequest better than by transcribing the will, which is given in the annexed note*; and by it there appears,

* In the name of God, amen. I Richard Jackson, of Fork-hill Lodge, in the county of Armagh, Esq. being of sound and disposing mind, memory, and understanding, do make and publish this, my last will and testament, hereby revoking all former and other wills by me heretofore made. I give and bequeath to my dearly beloved wife, to be by her will disposed of as she shall think proper, all my estate in the county of Cavan, subject to the sum of 20,000*l.* sterling, out of which sum of 20,000*l.* sterling, good and lawful money of Great Britain, I order my debts and legacies to be paid, and the remainder, if any, of the said sum of 20,000*l.* I leave to my executors upon trust.

I give and devise to my sister, Susannah Barton, widow, and her daughter after her decease, all that remains my property in the city of Dublin, not subject to any debt at the time of my decease, and to their heirs for ever.

I give

pears, that a considerable interest in his estate of Forkhill was left undisposed of, and, of course, descended to his heir at law; the rental of the estate was at the time of his decease, in the year 1787, about 2550*l.* per annum.

This

I give and devise to the Most Rev. the Lord Primate of all Ireland, the Right Rev. the Lords Bishops of Down, Connor, and Dromore, the rectors of the parishes of Fork-hill, Killevy, Loughguilly, Creggan, and Dundalk, and their successors, all my estate of Fork-hill upon trust and as trustees, for the uses herein after named, viz. : 1st. that, upon my decease, the interest of the 20,000*l.* charged upon my Cavan estates shall be regularly paid out of my Armagh estate, during the life of my ever dear wife; the remainder to be divided, after my wife has taken as much as she thinks proper for her ample accommodation, both of houses, demesnes, and rent, into two equal parts; I mean the rents to be equally divided, one half to be enjoyed by my sister and her daughter, and after their decease *to the propagating the gospel; the other half to be expended in clothing and educating as many, as the fund will allow, children of the church of Ireland, and in giving, at the age of twenty-five years, to each five pounds and a loom, and a small holding in preference to other tenants who may offer. I would wish, that such tenants should not get leases for lives, that they may not be debauched by the thirst or power of gold.* I appoint my wife, sister, niece, the Rev.

Thomas

This naturally threatened much litigation, but the parties wisely compromised and adjusted matters, which they got confirmed by an act of parliament;

Thomas Woolsey, Jackson Wray, jun. Esq. Thomas Reed, of Dundalk, Esq. and Daniel M'Dougall, executors of this my last will and testament; my will is, that after my wife's, sister's, and her daughter's decease, *that half of Fork-hill estate shall be employed in propagating the religion of our blessed Saviour, particularly in the east, by adding to the number of Danish and other protestant missionaries, as my said trustees, or any three of them, a bishop being one, shall think proper.*

I give to the infirmary of Dundalk 100l.; and I give to the rector of Fork-hill, for the time being, three guineas yearly, to be by him, or my executors, in his name, paid to said infirmary annually; the like sum of three guineas annually, to Armagh infirmary, I leave to him or my executors, to be paid in his name, or in the name of the curate, if the rector should reside elsewhere, as my intention is, that the resident clergyman should be a governor of each hospital, for the good of my poor fellow-creatures, who are destroyed by the advice of quack doctors.

I leave to Jackson Wray, jun. Esq. 100l.; the like to Daniel M'Dougall, my faithful steward; a year's wages to each of my servants; ten pounds yearly to Richard Gracey, and ten pounds more to Thomas, his father, for his maintenance.

I give

ment; in which it was agreed, that a portion of the rents from the estate of Fork-hill, immediately from

I give to Mrs. Ann Boyd, of Wexford, 200*l.* and after her decease to her nephew, my godson. I desire my executors may, with the advice of my trustees, apply the remainder of the 20,000*l.* towards the defraying the expence of any suits at law, that may be commenced on account of this will, without sale of my manor of Fork-hill, *and in making a decent provision for honest old decayed tradesmen or farmers. I leave 100*l.* to buy looms, to be given to the poorest of my tenants in my two manors, whose sons have served an apprenticeship of three years; and I leave 100 great coats to 100 of the oldest of them at the time of my decease.* In witness whereof, I have hereunto set my hand and seal, this 20th day of July, 1776.

RICHARD JACKSON.

Signed, sealed, published, and declared
by the testator, as, and for his last will
and testament, in the presence of us,
who in his presence, and the presence of
each other, have hereunto subscribed our
names as witnesses hereto,

SAMUEL BUTLER,
THOMAS BUNBURY,
JOHN M'MULLEN.

from the time of the testator's decease, was to be applied to the uses of the poor children of his tenants, as directed in the will, and to continue for ever, which lands at that time yielded 375*l.* annually; and the residue of the net income, after the deduction of 200*l.* per annum, for agencies, quit-rent, &c. was to be vested in his wife, sister, and niece during their lives, and, after their decease, that the one half of the net income of said estate of Fork-hill was to be applied, from thence for ever, to the propagation of the christian religion in the east; the remainder of the issues of the estate was for ever to become the property of the heirs and assigns of his sister, as heir at law, as is more particularly set forth in the act of parliament.

This digression was necessary to the fully explaining the nature of the charitable purposes, for which the bequest was made, and which so materially concerned the district under consideration. I shall now resume the review of this division.

The southern bounds are the wildest parts of the county, which are already described in the early part of this work; in this district is the small village of Fleury-bridge, situated about four miles from Newry, on the Dublin road, where there is a daily post, and which adjoins the village of Jonesborough. These two villages are now considered as one only, under the denomination of Jonesborough,

borough, and adjoin the county of Louth, at the demesne of Ravensdale-park.

The eastern bounds of this barony, which also make the line of division between this county and Down, are strongly marked by the Newry canal, and the Newry river. I return to the point of junction of the river Ban with the canal, and shall trace it from thence up the stream to Newry town.

This river flows in a valley, which extends from Lough-Neagh to the sea, and was a strong line of defence in this country, which was so long the scene of warfare, in contest between the English troops and the natives, and a natural barrier of at least twenty-five miles in length, on which were but four passes, affording a dangerous and formidable communication between the counties of Down and Armagh, through bogs, woods, and morasses; these remarkable places were Scarva, Tuscan's-pass, Poyntz's-pass, and Newry, all of which may be as properly said to be in Armagh as in Down county, as they stand on the borders of both, and it was in these places that the English armies first assembled in the year 1688.

The first of these, on the line from Lough-Neagh, is Scarva-pass, which is defended by a large bog, through which it runs, and was anciently called Glan-Flush; some works were built on this pass
by

by Colonel Monk, afterwards Duke of Albemarle, but not of durable materials, as there do not remain any vestiges of them; near this pass is a small village with a salt-work, and also a small lake called Lough-shark from the abundance of pike it is famous for; a lesser lake, which is contiguous, is called Lough-dian.

Approaching towards Newry from hence, the road runs parallel to the canal, and just adjoining it, and the country on either side is very interesting, and in great cultivation. In this line we approach the neat town of Acton, which, with the adjoining mansion, demesne, and manor of the same name, was some years since purchased by the late Mr. Hanna, a very eminent merchant of Newry, from the then proprietor, Mr. Stewart, a lineal descendant of the original family, by whom that extensive manor for ages past had been enjoyed.

The village of Acton, which adjoins the Newry canal, is extremely neat, the houses are new and well built with hewn stone, window stools, and the roofs are very capitally slated and ranged in due and neat proportion. The main street is intersected at right angles, and already nearly one half of the original plan is completely built. Mr. Hanna paid much attention to the improvement of the town during the short time it was under his controul, and built a capital malt-house and stores on the
banks

banks of the Newry canal, which passes close to the village.

The situation of Acton is extremely favourable for trade, and naturally is very beautiful; an excellent inn is already established here, and this is now a well frequented stage, which the new line of road from hence to Newry so particularly is favourable to.

From hence to Drumbanagher, the seat of ——— Moore, Esq. the country is very fine. In this capital demesne the soil is rich, and the plantations in great vigour, surrounding a very excellent mansion-house.

This part of the country is extremely well fortified by nature, lying high and commanding a great extent, and is celebrated as having been the principal strong hold of the Earl of Tyrone, during his long contested wars with the English government.

The vestiges of his entrenchments, where he was encamped, are yet seen, and since his time to the present have been called Tyrone's ditches. This position was also chosen by this general, as being the most central between Lough-Neagh and the sea, and his troops covered the entire line.

From hence, the country is beautifully wooded, particularly on the county of Down side; and on the new line of road to Newry, where the brow

of the hill has been levelled and cleared of the rock, the views are interesting and picturesque.

I should have noted the pass between Acton and Drumbanagher, which was originally called Fenwick's, but now Poyntz's-pass, from the circumstance of this important position having been forced, after a desperate action, by Lieutenant Poyntz of the English army, with a few troops, against an immense body of Tyrone's soldiers; for this extraordinary gallantry, he was rewarded with a grant of 200 acres* in this barony, which his descendants have since enjoyed. A castle formerly commanded the pass, some vestiges of which can yet be traced.

On the line from Drumbanagher to Newry, is the last of these formidable passes; the position is very strong on this side of the water, and the ground, commanding it, is called Tuscan's, or Lamb's-pass; in Irish it is named *Turrishane*. I have not learned the origin of its name; a castle was also built here to protect this pass, which can yet been traced.

The particulars of the present establishment of the Newry canal, which I have frequently had occasion to mention in this division, will be found in the sixth section of the first chapter, under the heads, *Waters, Newry canal*.

I should

* See the extracts from Harris's *Hibernica*, in the Appendix to this work.

I should however remark the wonderful change of the constitution, if I may call it, of this county, at the present day, from what it possessed when this navigation was first made at the expence of the nation; the intention having been, as is particularly expressed, for the benefit of agriculture, and to convey coals from the Tyrone collieries to Newry, from whence they might be shipped for the different ports of Ireland. The reverse is now actually the purpose, for which this canal is at all employed, and proves how little it is occupied in assisting agriculture, and how entirely it has been devoted to the furtherance of manufacture. This is exemplified in the privilege the public enjoyed, of conveying manure, lime, or limestone on this navigation toll-free; and it will serve as a strong proof of the decrease of trade on this line, as well as of the ignorance of the neighbouring farmers of their privileges, when I inform my readers, that at this time they draw their lime in cars on the road, which runs close to the canal, and parallel to it for several miles distance, both for the purposes of manure and of building, at ten times more expence than they might convey it by water; and so far from this line being employed in the conveyance of coals from the Tyrone collieries to Newry, perhaps a greater quantity of sea-coal is sent from Newry on this navigation to the nu-

merous bleach-greens in the interior, as well as the great abundance, which is consumed in this populous district for culinary purposes.

The demesnes not before mentioned in this division are, Mullavilly, the seat of Mr. M'Conwell; Poyntz's-pass, of Mr. Bell; Fork-hill lodge, of Mrs. Barton; Fork-hill, of Mrs. Jackson; Heath-hall, of Mr. Seaver; Southwark, of Mr. Courtney; Jonesborough, of Mr. M'Neale; and Turner's-hill, of Mr. Turner. Some of these are already finished demesnes, in high culture, and ornamental improvement, and a particular attention is paid to plantation.

The general report of the soil of this extensive division is deep, tilly, and rich, highly fertilized with lime manure, and it yields very fine crops, particularly of barley. The average value of these lands is fully equal to thirty shillings per plantation acre, annual rent.

The country from hence to Newry, by the navigation, is very pleasing and well cultivated, but, departing from the canal line, a worse road cannot be conceived, than from the junction of the new road with the old turnpike road between Newry and Armagh; the miserable state of the bleak lands, at either side, fully corresponds with the evident and disgraceful neglect of this part of the country, and deserves great reprehension; on so noted a
thoroughfare,

thoroughfare, surely the tolls ought to be adequate to the repairs.

I shall now conclude this chapter with some account of the town of Newry, and the interesting particulars of that antient lordship.

Lordship of Newry.

OF this extensive territory, by far the greater part is in Down county, and is constituted there a half barony; the smaller division, which is situate in this county, lies in the barony of Orior. This property deserves a particular attention, on account of the extraordinary privileges and immunities, both civil and ecclesiastical, which the proprietor has enjoyed for many ages.

The great expanse, which includes the lordship of Newry, was originally abbey lands. The abbey for Cistercians was founded anno 1153, by Maurice M'Loghlin*, monarch of all Ireland, with the consent of the kings and peers of Ulster, and Errigal,
and

* From the several bishops, who were witnesses to this charter, it appears to have been granted between the years 1148 and 1173. See Harris's Collect.

and became a celebrated place, which was the origin of the town of Newry.

This building was named *Nevoracense Monasterium*, or the abbey of Newrie*, and it is named in the charter, *Ibar Cyn tracta*, which is translated, the flourishing head of a yew tree; the tradition being, that, at the time of the founding of the abbey, there was here a celebrated grove of this timber, which was a suitable place for monkish confinement and recluse studies. It is further said, that two remarkable yew trees shaded the abbey gates; hence the place was called in the plural number, the *Neweries*, or the Yews; in the latin of that age it is translated, *Monasterium de viridi ligno*, from the Irish *Na Júr*. We are told that in the burial ground, which adjoins the abbey, some stumps of trees were found anno 1688, on the south-east side, by soldiers who were digging a grave; that these stumps, or roots, had a beautiful red colour, and took a fine polish, and were converted into utensils for various purposes; it is probable they were the remains of the ancient yews, for which this place was celebrated.

The abbey being founded, a library was annexed to it, and this religious house was placed under the invocation

* Newry has been also called, *Jubbar-chiawn*, *Traigh*.
See *Monasticon Hibernicum*.

invocation of St. Patrick and St. Mary; but it is recorded, that, in 1162, the abbey was burnt and the library, and a yew tree, which was planted by St. Patrick, shared the same fate; about eighty years after the founding, the several endowments were confirmed to it by Hugh de Lacey, Earl of Ulster.

From thence until the reign of Henry VIII. this abbey flourished, and had amassed considerable treasures, but this monarch changed its constitution to a collegiate church for secular priests, anno 1543. This college consisted of a warden and vicars choral; a confirmation of all those possessions was granted on the 28th of June, in the 30th of Henry VIII. reserving only to the crown the yearly rent of four marcs; but a few years after, when this prince shook off his subjugation to the papal see, it shared the fate of the other religious houses, and was dissolved; but in the succeeding reign of Edward VI. this lordship was granted to Sir Nicholas Bagnall, who was marshal of Ireland, with all the immunities and privileges, which it enjoyed as an ecclesiastical establishment, and he was permitted to use in his court the ancient seal of the charter, on which is represented a mitred abbot in his albe sitting in a chair, supported by two yew trees; the motto, *Sigillum exemptæ jurisdictionis de Viridi ligno, alias Newry et Mourne.*

The

The marshal now resided on his territory, converted the abbey into his palace, re-edified and strengthened the town, and built some castles and strong works, the vestiges of which yet remain, nor is it above fifty years since the ruins of the ancient chapel were standing. He also built the church, anno 1578, and is interred within its walls.

This church, which is situated on very high ground, almost inaccessible to carriages, is a vicarage in the diocese of Dromore; it was almost destroyed by the insurgents in 1641, and remained a ruin till after the Restoration, when it was repaired and roofed; but soon after the roof was taken off, and the walls were raised, to admit of a gallery.

In 1689, the Duke of Berwick burned the town of Newry, to secure his retreat to Dundalk from the English forces under the command of the Duke of Schombergh.

This lordship, and all its ancient privileges, were enjoyed by the descendants of Sir Nicholas Bagnall, and at length became the joint property of two ladies, on whose marriages the estate was divided, and is now vested in the Earl of Uxbridge and Mr. Needham; the former proprietor enjoying the Mourne manor, and the latter the lordship of Newry. The line of division takes place at Crown-bridge, in the county of Down, about a mile from Newry, marked by a celebrated rath, with a large platform

on

on its summit, which, tradition says, was erected for the place of single combat, fought by two princes, who were competitors for a royal territory; hence this place was called Crown-rath, from which the bridge is also named. The ruins of an old chapel stand northward of the rath, on a rising ground, contiguous to a small lake.

In the original grant to Sir Nicholas Bagnall, there is a reservation of certain tenements in the town of Newry, and the town-land of *Cornyhoughs*, which is in the vicinity, over which the lord was to have no privilege, it having been a prior grant made to one Colin Crilly.

Mr. Needham now enjoys all the ancient privileges and immunities under the old monkish seal, which are very considerable. He is *ex officio* rector of the parish, and has the power of granting marriage licences and probates of wills; he receives the tithes with his rents, and appoints a clergyman his vicar, to whom he pays a salary; it is contended that this gentleman is only accountable to him for his conduct, and not to the bishop, which, however, is a point disputed, and yet to be determined. The presentation to the living is claimed by the bishop, which is also to be decided; but, should the ecclesiastical court be successful in this claim, it will tend to no advantage, for the tithes are the property of the rector, and the salary he pays his vicar is quite

at

at his option; and it is even a matter of doubt, whether the bishop could oppose his officiating in person, although not in orders, so fully are his rights expressed. His power in granting marriage licences is also very full, as by his authority the marriage is good, if there be no legal objection to the parties intermarrying; but no legal omission, or errors in the proceedings, or in the licence, would annul the marriage, which was not generally the law of the land prior to the passing of the marriage-act, and before that time this proprietor enjoyed the privilege.

Exclusively of his ecclesiastical privileges, his civil authority is very great, as he holds courts baron and leet, and can command the sheriff not to carry his rod through his territories, even before the judges; and, to preserve this authority, that magistrate's rod has been broken in their presence. He has also the power, by his receipt, of discharging all recognizances to the crown, which have been forfeited within his jurisdiction, if the offender has resided therein six weeks prior to the forfeiture, which it is mandatory in the sheriff to obey, and which sum the lord of the manor can order into his treasury, and keep from the king's exchequer. This right has also been preserved by the institution of a suit against the sheriff, for having paid 300*l.* into the exchequer, of fines levied within this manor, which

which sum, with costs, was recovered from him by the award of the court; nor can a judge of assize, in the towns of Armagh or Downpatrick, effectually punish an offender, within these territories, for not appearing to the sheriff's summons, as it is in the power of the lord of this manor to remit the fine at his pleasure, or to enforce the forfeiture, and order the sheriff to pay it into his own treasury.*

The tithes and the rents of the lands of Mr. Needham's proportion exceed 10,000*l.* per annum, but the tenth part of these lands are not in this county. This gentleman's character, as a landlord, cannot be excelled in indulgence and generosity to his tenants.

Lord Uxbridge's manor of Mourne, though considerably more extensive, is not so lucrative as the lordship of Newry; it covers the vast area of the Mourne mountains, and a large district, the greater parts of which are wild, uncultivated, and uninhabited wastes. His Lordship and Mr. Needham present in rotation to the united parishes of Mourne, Kilcoo, and Kilfegan, which are estimated at 1000*l.* per annum, all situate in the county of Down.

In that part of the town of Newry, which is within this county, very fine warehouses are erected,
and

* I understand that Mr. Needham remits this privilege to the crown, but does not concede it altogether, only during his pleasure.

and a considerable wholesale trade is carried on here. From hence runs the canal, nearly parallel with the Ban, in its course to Lough Neagh, and at fourteen miles distance it joins that river. The line of this navigation, from Newry towards the sea, terminates at Fathom, where it joins the tide-water. A canal has been in contemplation, to be cut from this town to Armagh, and an iron road is also talked of, but there has been no decision in either cases.

Newry is celebrated for its extensive butter trade, which, it is said, amounts to above 300,000*l.* annually. This market is so well known, that sometimes they send butter here even from the county of Sligo; the price is certainly encouraging, and has the last season averaged 5*l.* 12*s.* per hundred weight.

This trade will doubtless be injured, when a canal or iron road from Castleblaney to Dundalk is completed, which is determined on. All the butter of Cavan and Monaghan counties, which is regularly sent to Newry through Castleblaney, will stop here, and go to Dundalk, by which means a great expence, and seventeen miles distance of the worst road in Ireland, will be saved.

A considerable trade is also carried on in Newry, in supplying pork and beef for the navy orders.

The linens exported from Newry, from January 1802 to 1803, amount to 200,000*l.*, and might average 2*s.* 2*d.* per yard.

The

The flax-seed imported for the last ten years, from 1792 to 1801, both inclusive, averaged 12,321 casks annually; the greatest number was 18,160 casks in the year 1799, and the smallest number was 7,064 casks in 1795.

The linen market is the second in the province, and averages 4,500*l.* weekly sales. This is held in the most inconvenient and disagreeable part of the town, which place is also chosen for the cattle-stand on fair days, and is extremely inconvenient.

The linen market is here considerably decreased, since the new market of Kilkeel, in the county of Down, and of Carlingford, in the county of Louth, were established, which are both near to Newry. The linen trade of Belfast has also rivalled this town; its linen-hall is well established; but the splendid edifice, which the merchants of Newry built for this purpose at an immense expence, is now entirely abandoned from its original use, and has lately been purchased by government, and converted into a barrack. The old barracks are to be appropriated to a custom-house, which will be a great convenience to the merchants, as the present custom-house lies far from their business.

These new barracks are unquestionably the best accommodated for the purpose in Ireland, or perhaps in his Majesty's dominions, though built for a purpose so extremely different as a linen-hall. The
linen-

linen-merchants have been obliged to sell these concerns to such a disadvantage, that the dividend of each proprietor was but thirty pounds for every original hundred subscribed, as it was built by subscription, and debentures were issued accordingly.

In this town a very capital distillery and malt-houses were lately erected; and some good breweries, with a windmill for bolting flour on a large scale, have also been built.

A new coffee-house has lately been finished, and this town has long been celebrated for its handsome theatre. A capital foundry is now in forwardness, and there is already an extensive manufactory for all sorts of hammered iron, particularly for spades, shovels, and scythes.

A spirited trader has also set up several looms for weaving damask, which have every prospect of success.

All the subordinate branches of manufacture, equal to the demand of so populous a neighbourhood, are carried on in this town, and the shops are well supplied with not only the necessaries, but all the elegancies required in so opulent a vicinity.

I must not omit, that Newry is a pot-walloping borough, and returns one member to the Imperial parliament.

It would be unpardonable to conclude this section, without noticing the celebrated Pagan reliques
of

of *Cairn*, or *Tlachgdgha Ban*. There are two places of this name in this division, both situated near Newry. One of them is a conical heap of stones, one hundred and eighty yards in circumference, and ten yards in height; the other a Pagan temple. This remarkable place, which is about two miles north of Newry, on the banks of the canal, is one of the earliest vestiges of antiquity which remain in Ireland; it is doubtless of Pagan origin, and must have been a *Crom-Leach** of the Druids,

* The following critical explanation of this word, from General Vallancey's *Vindication of the Ancient History of Ireland*, may be acceptable to my readers.

“*Crom-Leach*.—No words in the Pagan religion of the western world have been less understood, than these, by all writers. It is the name usually given to two monuments of a distinct nature; one consists of a large flat stone in a horizontal position (or near it) supported by other upright stones, fixed in the ground, on purpose to bear the weight of that stone, which rests upon them; its elevation is six or eight feet from the ground. This was properly named the *Curr-am-leach*, the stone cast about; in some places it still retains the name of *Carrig Curra* (a), or the rock to be cast at. These are generally placed on elevated grounds, sometimes standing on the plain natural soil, and at other times on the tops of *Carns* or artificial mounts; and at others it is placed in the middle of a circle of stones erect; it was then named *Cir-am-leach*, or, the circle about the stone (b). The third

(a) As at *Carig Curra*, county of Waterford.

(b) At *Carig a phouka*, in county of Cork.

Druids, as it bears every resemblance to their ancient temples in its interior disposition, though it differs

third species of these monuments, is the large stone of a rude pyramidal form placed on three others, which is also named a *Crom-leach*; these huge irregular rocks required three up-rights at least, to support their incumbent weight; there is no mystery, as some have idly imagined, in the number of the supporters, because, as Dr. Borlase rightly observes, they found it much easier to place and fix securely any incumbent weight on three supporters, than on two, four, or more; hence we find, when the weight was too great to be raised, the stone rested on the natural ground, as at Mên in Cornwall, or they cut away the rocks, if any below it, to give it the appearance of having been placed there by art, as the *Clock-market-stone* at Skreen, county Sligo, and the *Tollmen-stone* in Cornwall.

The first kind of Cromleach, being a flat stone, resting sometimes on two pillars, but oftener on three, called *Curr-am-leach*, or *Carrig-Curra* (the stone or rock to be cast at), is undoubtedly the בית-הרם *Bith He Ram* of the Canaanites, mentioned Jos. 13. and 27. The name declares it to have been a temple dedicated to their God, the *Heavens*, under the attribute of the *Projector*, or mover of things projected. We have notable remains of the worship of this famous God in this nation (says Hutchinson), (c). The Chaldeans named this temple בית קוליס *Bith Kolis*, by which it is supposed they meant Mercury, whose name in Irish is *Coll* or *Tait*. These monuments the Chaldeans named מרקוליס *Merkolis*, which Buxtorf explains “Statua Mercurialis, Idolum Mercurii cui cultus certus fiebat—dispositi fuerunt duo lapides magni, unus hinc, alter illinc, quibus tertius impositus, media sui parte, utrumque tegens.—Veteres etiam appellarunt Bith Kolis, Domum

(c) Moses principia, p. 2. p. 313.

differs from the most of those antiquities which I have seen, as having a deep sloping bank far within
 c c outside

Domum Kolis, de quo apud Talmudicos.—Ad dictos tres lapides *projiciebantur* alii lapides certo ritu, & cultu. Sanh. C. 7. f. 60.—Qui projecit lapidem ad Merkolis, (si committit idolatriam) qui hic est cultus ejus.”

Sundry authors construe Prov. 26. and 8. רגל ragam, to throw stones, sicut qui mittit lapidem in acervum Mercurii. See Selden, Maimonides, Vossius, &c.

Hence Borlase observes, some of the *Cromlechs* of Cornwall were quite inclosed and buried, as it were, in the Carn. As we find another name of Mercury in the Chaldee and Arabic was *Katab*, i. e. the Writer; and in the former language *Kata* signifies an upright rock or stone, Lat. *cautes*, Gall. *roches escarpées*, Saxon *Cote*, *Cyte*, *Rupes*, *Spelunca*; I am of opinion the Chaldee or Phœnician כתב קטב *Katab-Kata*, has been corrupted to *Kit-kotty*, as the Irish *Gloch-markit* is of *Gloch Mor-Kata* (d); whence *Kitts Cotty House*, the vulgar English name of the famous *Curr-am-leach* or *Cromleach* in Kent, which, according to Camden and others, was erected over the burial-place of Catigern, brother of Vortimer king of the Britons; but it is more probable that, finding this *Cromleach* at hand, they buried him under it: for it is remarkable, that the nearest quarry to this monument is six miles distant. Would it not have been easier to have conformed to the general mode of sepulchres, and have raised a carn of earth over him, rather than have been at the vast trouble and expence of drawing such immense stones, some of which weigh more than eight tons, the distance of six miles, to cover the corpse of the brother of a king?—Dr. Borlase is certainly right in placing this monument as a *Cromleach*.

These

(d) Twenty-three feet in girth.

outside the mount, enclosed with upright stones, and which is about two hundred yards in circumference ;
the

These monuments were so named from the Ch. רמא Rema, *jacere*, *projicere*.—The Jews had sacrifices appointed to be brought to the temple of God, called by this name, rendered the *Heave-offerings of their hand*.

The Laplanders have a custom of throwing stones in the worship of the God Jumala. (Schefer, p. 23.) Sale, in the preface of the Koran, observes the same of the Arabians. Pilts, in his account of the religion and manners of the Mohammedans, p. 135, 3d Ed. describes the same practice ; whence I conclude it was one of the general modes of Pagan worship, established before the dispersion, as ablution, lustration, &c. most certainly were, from their general use among all nations.

Now the word רמה rama, to project, when applied to the actions of the mind (with which this God had no business) signifies to deceive ; and the projected stones, rising at length in heaps, called by the Irish *Lachtan* and *Chrom*, the Chaldean word ערמה Gharema, signifying a heap, *acervus*, came at length to signify the worship of this projecting ceremony ; and the oriental word being pronounced *Hbarema*, *Hharma*, or *Gharema*, the Greeks formed their idea of *Hermes*, the prince of frauds, tricks, and cunning ; and from the same word is derived our Irish *Crom*, and *Carn*, a heap, a pile.—Ex Harina, vel Garma, fit Lat. Grumus, Gall. Grumeau, Sax. Cramman, Anglice Cram ; farcire, saginare ; posset et hinc esse Horreum ubi acervantur frumenta. (Thomassin.) Hinc & ἑρμης, fraudum, & astutiarum princeps Mercurius, unde & Mercurii nomen. (id.)

The large rude monument of this kind, in a pyramidal form, is certainly a symbol of their great, invisible, and unknown

the entire area which it covers may be about a rood of ground, and is rather on a gentle eminence in a

c c 2

large

known God; the *חרם לוח* Charam Louach, i. e. the devoted or consecrated stone; the Irish *Crom Cruach*, or *Aesar*, the Creator; the *ישר* iashar, of the Chaldees and Phœnicians, from the word implying the *Creator*, and the *Achar* or *Ashar* of the Brahmans.

These emblems of the Deity, as the creator of the heavens and the mover of the bodies projected, must have been established before the dispersion. Hence arises Dr. Borlase's observation; "What nation, sect, or religion, this kind of monument may be said properly to belong to, or had its rise from, is a point not easily to be adjusted, says he, seeing we find them in Denmark, France, Germany, and the isles of the Mediterranean Sea adjacent to the coasts of Spain and France, in Jersey, Ireland, Britain, and the British Isles; and perhaps in many other countries they will occur, especially the northern kingdoms, by which they should seem to have been *Celtic monuments*, and with that numerous people carried into all their settlements.

This ingenious author had not consulted all the writers on the pagan worship of the Eastern nations; his ideas were confined to the Northern alone.—Kircher would have pointed out to him the Cromleach of the Egyptians; Castellus would have shewn him, the Orientals had forty-eight ways of writing the name of the attribute ascribed to this Deity, all of which terminated in the Greek *Ἐρμῆς*, in which word they comprehended the *motion* of all things, even the atoms of vegetables; under this attribute, adding at length wings to this image, to shew they supposed it had wings and power to fly upward, descend, or any way; and, as an attribute of

what

large plain, enclosed by lofty hills at some distance, forming a spacious amphitheatre ; the stones are of a hard

what they took for a God, could communicate that power to, and make other things fly.—Thus, from the ignorance of the later heathens and the prevarication of the Jews, they formed their *Baal-zebub*, a God of the air, a flying God ; but in these remote countries, the original attribute continued to Christianity.

There are several places in Canaan, and parts adjacent, named from this attribute *Rema* ; so in Ireland we have several : *Cnoc Rambar*, or the hill of Rema, on which these Cromleachs have been placed ; and I am much mistaken, if many of our lands denominated *Curra's* do not originate from the same kind of worship.

The *Fan-leac* was the Chaldee name for the *Crom-leach*, signifying the stone of adoration, from פנה *phane*, coluit, adoravit. Ne חפנו *tephanu*, ad idola, Levit. xix. 4. The word also signifies, respexit, adspexit ; hence Gen. xxxii. Et vocavit Jacob nomen istius loci פני-אל *Phani-el*, quia vidi Deum, phanim al phanim, facie ad faciem ; hence in Chaldee פני לפני *phani lephanim*, the Sanctum sanctorum. (Buxtorf ex Talmud.)

Fan therefore became a general word for every place of public worship, as *Fan Lobuis*, the church of St. Lobus in co. of Corke, &c. ; hence the Latin *fanum*.

Mias signifies an altar. Æthiopice *Mysway*, Arabicè *Miz-leb* ; hence *Sliabh Mias*, now called *Sliabh Mis*, or the Mountain of the Altar, in co. of Kerry.

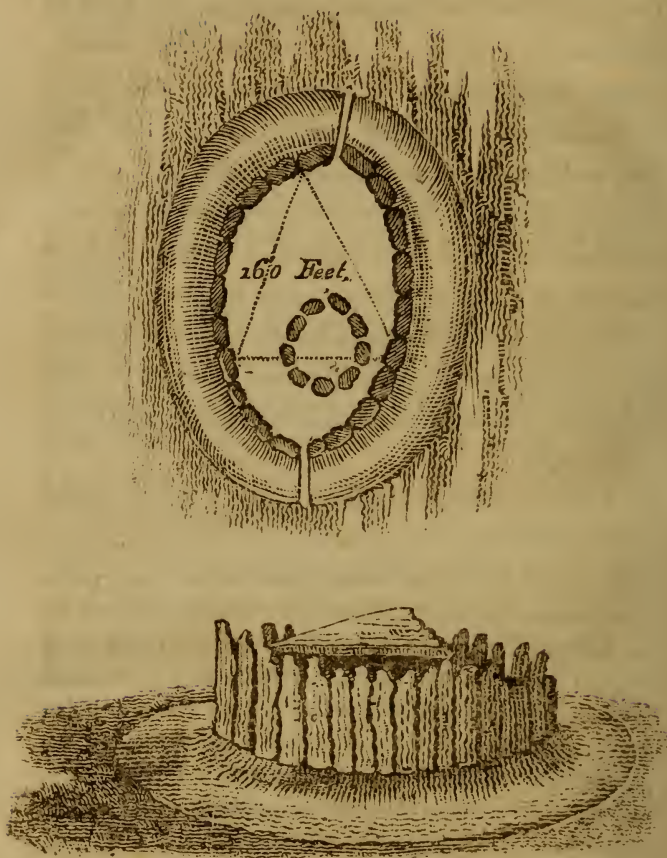
A certain number of these altars and temples were in every *Fairte* or episcopal see of Ireland, and each *Fairce* had its peculiar priests ; hence *Fairce*, a diocese, plural *Fairigh*, parishes ; the word is Chaldee, פרק *phark*, finis, terminus, pars, separare.

We

hard grit, resembling granite, but not so perfect in the grain. Within this glacis or slope, the base of the temple gradually rises towards the mound, whose circumference is one hundred and sixty yards, and is completely girthed or enclosed with long and ponderous stones, set upright, and closely joined together. At the north-western aspect the principal entrance is formed by a simple bank of easy ascent; and at the opposite extreme there is another open, which appears to be rather accidental, than of original design; it is much narrower than the other, and is contiguous to the altar, which lies in this point.

The

We must not here omit another name for an altar, which approaches so near to the Hebrew, it seems to point out the real derivation of it, and to have been borrowed from us by the Jews; it is *Arala* or *Urala*. The Hebrew אֲרִיֵּאל Ariel (Ezek. xliii. 16.) the altar which was twelve cubits long and twelve cubits broad, is the same word, letter for letter; the interpretation of the Rabbins is *Leo Dei*; the Irish *Arala*, the height or mount of worship, is surely a more rational explanation.—*Collectanea de rebus Hibernicis*, vol. iv. p. 479, et seq.



The horizontal slab, which is very ponderous,
rests on three upright stones, each about ten feet
long, though they do not appear to be so much as
half

half their height above the surface, until we examine the close hollow spot in which they stand, below the level of the ground. Nine smaller stones, set up in like manner, form the paling of the altar, but the slab does not rest upon any of them; they only serve to wedge in and support the three principal bearing stones.

The slab is almost of a triangular shape, whose sides measure twenty feet; but it appears to have had originally far greater dimensions, from the circumstance of the ground, which joins this altar, being sunk in like manner for many feet distance, and also is enclosed with upright stones, set up in the same position, and on a level with those which support the slab; it is the more probable that this slab was of greater size, as, in any of those temples now existing, there is no stone paling but what immediately encloses the altar, and on which the horizontal flag rests.

If, then, this altar was crowned with so massy a slab as would cover so extensive a paling, it is wonderful how such an immense weight, and unwieldy body, could be elevated to such a height on the bearing stones without the powers of mechanism, to which so rude a people must have been strangers. I have heard it accounted for, as being probable, that, after the upright stones had been set up, a large
stage

stage of trees, extending to a considerable distance around them, might have been heaped across each other, and the spaces within filled up with sods and stones; that this stage of gradual ascent, being raised so high as the tops of the bearing stones, was then firmly covered over with earth; that the joint labour of men, oxen, and horses might then be united, to drag the slab up the ascent, until it was rested on the stones, after which the stage could be removed, or set fire to, the slab remaining in its desired position.

This ancient relique was about five years ago in perfect preservation in every respect, excepting the slab; and I am concerned to state, that the present occupier of the lands, an opulent brewer in Newry, has almost entirely dismantled the outer paling, and appropriated the stones to building in the town. This devastation has already reached the interior works; but it is hoped that here the sacrilege will rest, and that the altar will be spared, to mark one of the most ancient reliques which exist in this county. The annexed drawing represents its figure, as it stood about five years ago.

I must observe, in finishing this sketch of these baronies, that there is no limestone in this district, nor is there any appearance of this fossil nearer than Carlingford, ten miles distant from Newry. It is
rather

rather a singular circumstance, that on the opposite shore, in the county of Down, there are large rocks of it close to the water's edge, and it is not found within ten yards from the beach, nor in any other part of that country.

CHAP. XIV.

CONCLUSION.

I HAVE already explained, in the preface to this work, that I cannot flatter myself that these Reports can be considered free from error. The nature and the variety of the enquiries must preclude the possibility of such a work being perfected by an individual; and, indeed, the author extremely regrets that, from fortuitous circumstances, and his very ill state of health at the several times he visited this county, he was precluded the satisfaction he should have received, and, of course, the more correct information, from the gentlemen of the county, so few of whom he had an opportunity of consulting.

Should they have the goodness to correct any errors they may discover, or supply any omissions, and favour the author with their observations, under cover to the Dublin Society, he will pay every attention to their opinions in the next edition, which will be published as soon as the necessary materials are collected.

In

In making my acknowledgments to the very few gentlemen, who favoured me with any assistance, I have, in a particular manner, to return my sincere thanks to James Dawson, Esq., chairman of the county. I feel that I have trespassed on his polite attention; but my readers will allow I could not possibly have drawn my information from a more intelligent source, or rested it upon surer authority.

CHARLES COOTE.

APPENDIX.

APPENDIX.

Extracts from Harris's Hibernica, and Captain Pynnar's Survey of Ulster, in which are given the Names of the original Patentees of the forfeited lands of this County, and their Denominations, with preliminary Observations.

HAVING already given the present state of property in this county, in the second chapter and fourth section, I shall now shew how the estates were arranged, after this county became escheated to the crown, as taken from Harris's Hibernica, and shall state, of the project for the plantation of Ulster, so much as may be necessary relative to our narration. It is proper first to refer to the
state

state of property preceding the confiscation, and we find it was centered in the families of the O'Neil's, the M'Cane's, and O'Hanlon's.

In the commencement of the seventeenth century it was principally vested in the families of M'Henry, Acheson, O'Neil, Brownlow, and O'Hanlon, exclusive of the great territories settled on Moharty, which the M'Canes forfeited in rebellion; and also a great tract of country, called *Oirther**, was escheated to the crown, which a branch of the O'Hanlon's had lost in rebellion.

I shall proceed now to speak of that allotment of lands, which was made in 1610 by James I. as reported by Pynnar in his survey of the escheated

* *Oirther* was a district in the south of this county; the hereditary chiefs were the O'Hanlons; some of this family enjoyed their ancient patrimony within these two centuries. The O'Carroll's had also a wing of this county, called *Orgiel*, which territory comprehended *Oriel* and *Uriel*, derived from *Oir Caël*, or the *Eastern Caël*; this was an ancient and extensive district, which included part of this county; and the whole of Louth and Monaghan was governed by its proper king, subject in some respects to the supreme monarch. The sovereignty of this territory was invested in the family of the O'Carroll's, hereditary chieftains of Hy Cairol.

Collectanea de rebus Hibernicis, Vol. III. page 402.

cheated counties of Ulster, but it will be proper to give the general outline of the project, with an extract from it, for the division and plantation of this province, so far as relates to this county.

In the project there were four general points observed in every county, viz. :

1st. That the proportions of land, to be distributed to undertakers, should be of three different quantities: the first and least, to consist of so many parcels of land, as would make 1000 English acres, or thereabouts; the second or middle proportion, of so many parcels as would make 1500 English acres; and the third and greatest, of so many parcels as would make 2000 English acres, or thereabouts.

2d. That all the lands, escheated in every county, should be divided into four parts, whereof two parts should be divided into proportions, consisting of 1000 acres a piece; a third part into proportions of 1500 acres; and the fourth, into proportions of 2000 acres.

3d. That every proportion should be made a parish, and a parish church should be erected thereon, and the incumbents should be endowed with glebes of several quantities, viz. An incumbent of a parish of one thousand acres should have sixty acres; an incumbent of a parish of fifteen hundred acres should have ninety acres; and an incumbent of a parish

parish of two thousand acres should have one hundred and twenty acres; and that the whole tithes and duties of every parish should be allotted to every incumbent, besides the glebes aforesaid.

4th. That the undertakers of these lands should be of several sorts; 1st. English and Scottish, who were to plant their proportions with English and Scottish tenants; 2d. Servitors in Ireland, who might take English or Irish tenants at their choice; 3d. Natives of those counties, who were to be freeholders.

The general outline of the project being understood, it states that, “ the county of Ardmagh is
“ divided by ballyboes, but because the ballyboes
“ are not found to be of equal quantity or number of acres, the distribution of this county is
“ to be made by acres.

“ The whole county doth contain 77,800 acres*,
“ which will make sixty-one proportions, viz. of
“ the least thirty-eight, of the middle sort thirteen,
“ and of the greatest proportion ten, and thirty acres
“ over to be added to some parish. In every of
“ which proportions there is to be a parish and
“ incumbent with glebe, and by this *ut supra*.”

For

* Arable and pasture only.

For the Church.

- “ 1st. Out of these are to be deducted first,
 “ primate’s share, which do contain 2400 acres.
 “ 2d. For the incumbent’s glebes, 4650 acres.
 “ 3d. For monastery lands already granted, 430
 “ acres.
 “ 4th. The lands of the Fughes already possessed
 “ by Sir Tirlaugh M’Henry, containing 9,900 acres.
 “ 5th. The lands granted to Sir Henry Oge, con-
 “ taining 4,900 acres.

The Undertakers portion.

“ So as after these deductions made, there re-
 “ main for undertakers 55,620 acres, which make
 “ in all forty-two proportions, viz.: of the least
 “ twenty-seven; of the middle sort, nine; and of
 “ the greatest, six, which may be thus distributed,
 “ viz.:

“ To the English and Scottish undertakers twenty-
 “ eight, viz.: of the least, eighteen; of the mid-
 “ dle sort, six; and of the greatest, four.

“ To servitors six, viz.: of the least, four; of
 “ the middle sort, one; and of the greatest, one.

D d

“ To

“ To the natives eight, viz.: five of the least;
 “ two of the middle sort; and one of the greatest.

“ The odd acres remaining are in number 3120,
 “ which may be thus divided, viz.:

“ Twelve hundred acres to four corporate towns
 “ or boroughs, which are to have like liberties,
 “ and hold their lands as is before expressed, viz. :
 “ to Ardmagh 300 acres, to Mount-Norris 300 acres,
 “ to Charlemont 300 acres, and to a corporate
 “ town to be erected at Tanrygee, in O’Hanlon’s
 “ country, 300 acres. Of the rest 1200 may be
 “ granted to the college of Dublin, and the residue,
 “ being 720, to be allotted to the maintenance of
 “ a free school to be erected at Ardmagh.

“ Touching the natives who shall not be free-
 “ holders, they are to be placed or removed by
 “ order of the commissioners as in Tyrone*.

“ The

* The following extract from the project relative to
 Tyrone will best explain this, viz. Harris, page 55.

“ Touching the disposing of the natives, some may be
 “ planted upon the 2323 acres of land (which were two
 “ of the small proportions), and the glebes of the parsons;
 “ others upon the lands of Sir Art. O’Neal’s sons, and
 “ Sir Henry Oge ON’eil’s sons, and of such other Irish, as
 “ shall be thought fit to have any freeholds there; some
 “ others may be placed upon the portions of such servitors

“ as

“ The escheated lands in every of the said counties being thus divided and distributed, the several undertakers are to have such estates, and to yield such rents and services, and to observe such other articles as are lately published in print by his Majesty’s command *.

“ Lastly for the encouragement and advancement of the scholars of the college of Dublin, and to furnish the churches of Ulster with sufficient incumbents, we think it convenient, if so it please his Majesty, that there be six advowsons in every county given to the college, three of the best, and three of the second value.”

D d 2

Observations

“ as are not able to inhabit these lands with English or Scottish tenants, especially of such as best know how to rule and order the Irish.

“ But the swordsmen are to be transplanted into such other parts of the kingdom, as, by reason of the wastes therein, are fittest to receive them, namely into Connaught, and some parts of Munster, where they are to be dispersed, and not planted together in one place; and such swordsmen as have not followers, nor cattle of their own, to be disposed of in his Majesty’s service.”

* These are printed at large, in Harris’s *Hibernica*, with orders and conditions for the plantation, from page 63 to 72.

Observations on the Project.

This project is ascribed to be the work of the privy council of Ireland, drawn up for the consideration of the King and English government, as a guide for the plantation, and was in several respects differed from in what relates to this county; for in the project it is stated, that Tirlagh M^cHenry O'Neil had been granted, by patent, the precinct of the Fughes, containing 9,900 acres; and by Pynnar's survey, which follows, it appears that 5,500 acres of that precinct were granted to Scottish undertakers.

The grant of lands for the free-school of Armagh did not take place till the reign of Charles the First.

The transplantation of Irish swordsmen or soldiers into Connaught, or Munster, was not observed in this or other counties; and, though in the project provision was made for erecting several corporate towns, many of them were omitted through the escheated counties.

Having

Having explained the heads of the project, and referred the reader for ample information to Harris's Hibernica, I shall now extract, from Captain Pynnar's Survey of the forfeited counties of Ulster, the state of property in Arnagh in the years 1618-19, which was taken a few years after the grants had been made by the King; as the royal commission, issued previous to the plantation, was in the seventh of James the First, anno 1610, it follows, that the grants must have been made between that year and 1618, when the survey was taken.

COUNTY

APPENDIX.

COUNTY OF ARMAGH.

The Precinct of O'Neilan, allotted to English Undertakers.

No. I.

“ 2500 acres. *William Bromlow, Esq.* hath two proportions, viz. Dowcoran, being 1500 acres, and Ballenemony, 1000 acres.

Upon the proportion of Ballenemony, there is a strong stone house within a good island; and at Dowcoran there is a very fair house of stone and brick, with good lyme, and hath a strong bawne of timber and earth, with a pallazado about it. There is now laid in readiness both lyme and stone to make a bawne thereof, the which is promised to be done this summer. He hath made a very fair town consisting of forty-two houses, all which are inhabited with English families, and the streets all paved clean through;

through; also two water mills, and a wind mill, all for corn, and he hath store of arms in his house.

I find planted and estated upon this land of Brittish Families,

| | | | | | |
|----------------------------------|---|------------------------------|---|---|--|
| Lessees for years 52, viz. | { | 1 having 420 acres. | } | Total 57 families, who have divers under them; and all these have taken the oath of supremacy, and are able to make an hundred men with arms.— There is also good store of tillage, and not one Irish family upon all the land. | |
| | | 1 having 300 acres. | | | |
| | | 1 having 240 acres. | | | |
| | | 3 having 200 acres le piece. | | | |
| | | 1 having 120 acres. | | | |
| | | 13 having 60 acres le piece. | | | |
| | | 8 having 50 acres le piece. | | | |
| | | 6 having 40 acres le piece. | | | |
| | | 6 having 30 acres le piece. | | | |
| | | 9 having 26 acres le piece. | | | |
| | | 1 having 100 acres. | | | |
| Fre-holders 5 viz. | { | 1 having 11 acres. | } | | |
| | | 1 having 5 acres. | | | |
| | | 5 having 120 acres le piece. | | | |

No. II.

1000 acres. *Sir Oliver St. John, Knt.* hath a thousand acres, called Kernan.

Upon this there are two bawnes of timber, and moated about, and made very strong. There is in each of these an English house of cage work, and two English families dwelling in them; there

there is, near to one of these bawnes, five houses, being inhabited with English families; the rest are dispersedly upon the land three or four families together.

I find planted and estated on this land of Brittish tenants.

| | | | |
|------------------------------------|---|---|--|
| Freeholders 5, viz. | { | 5 having 120 acres le piece. | } Total 17 families, who with their under tenants are able to make thirty men with arms; and thirteen of these have taken the oath of supremacy. |
| Lessees for years eight viz. | { | 2 having 120 acres le piece. | |
| | | 3 having 100 acres le piece. | |
| | | 2 having 60 acres le piece. | |
| | | 1 having 40 acres. | |
| Cottagers, four, viz. | { | Each of these have a tene- | } |
| | | ment and a garden plott, with commons for their cat- tle. | |

No. III.

William Powell was first patentee. } 2000 acres. { Mr. Obbyns hath 2000 acres, called Ballnevoran.

Upon this there is built a bawne of sodds, with a palazado upon it of boards, ditched about. Within this there is a good fair house of brick and lyme, himself dwelling thereon ;
near

near to this he hath built four houses inhabited with English families.

I find planted and estated upon this land of Bröttish tenants.

| | | | |
|-------------|---|------------------------------|---|
| Freeholders | { | 3 having 120 acres le piece. | These twenty tenants, with their under tenants, are able to make forty-six men with arms. |
| 5, viz. | { | 2 having 100 acres le piece. | |
| | { | 4 having 100 acres le piece. | |
| Lessees for | { | 2 having 60 acres le piece. | |
| years 15, | { | 3 having 66 acres le piece. | |
| viz. | { | 2 having 40 acres le piece. | |
| | { | 1 having 30 acres. | |
| | { | 3 having 100 acres jointly. | |

No. IV.

| | | | | |
|-------------------------------------|---|-------------|---|---|
| The Lord Say was the first patente. | { | 3000 acres. | { | Mr. Copehath 3000 acres, called Derycravy and Dromully. |
|-------------------------------------|---|-------------|---|---|

Upon this there is a bawne of lyme and stone, an hundred and eighty feet square, fourteen feet high, with four flankers, and in three of them he hath built very good lodgings, which are three stories high. There are also two water-mills and one wind-mill; and near to the bawne he hath built fourteen houses of timber, which are inhabited with English families.

I find

I find planted and estated upon this land of Brittish tenants.

| | | | | |
|----------------------------------|---|--|---|---|
| Freeholders six, viz. | { | 1 having 200 acres. | { | These 47 families, with their under tenants, are able to make 80 men with arms. There are 18 of these have taken the oath of supremacy. |
| | | 3 having 120 acres le piece. | | |
| | | 2 having 60 acres. | | |
| | | 3 having 120 acres le piece. | | |
| | | 4 having 100 acres le piece. | | |
| | | 2 having 80 acres le piece. | | |
| Lessees for years 34, viz. | { | 3 having 60 acres le piece. | | |
| | | 1 having 55 acres. | | |
| | | 2 having 50 acres le piece. | | |
| | | 2 having 40 acres le piece. | | |
| | | 7 having 30 acres le piece. | | |
| | | 2 having 25 acres le piece. | | |
| | | 2 having 23 acres le piece. | | |
| | | 1 having 44 acres. | | |
| | | 3 having 20 acres le piece. | | |
| | | 2 having 10 acres le piece. | | |
| Cottagers 7, viz. | { | 3 having 3 acres le piece. | | |
| | | 2 having 2 acres. | | |
| | | 1 having 1 acre le piece, with commons for their cattle. | | |

No. V.

1000 acres. *Richard Roulstone* hath a thousand acres, called Semore.

Upon this there is a bawne of sodds, with a pallazado, and moated about, and a little house in it, inhabited with an English family; and near to the bawne

bawne he hath made nine houses,
which are inhabited with English tenants.

I find planted and estated upon this land of Brittish tenants.

| | | | | |
|--------------------------|---|--|---|--|
| Freeholders 2, viz. | { | 2 having 100 acres le piece. | { | Total, 10 families who, with their under tenants, are able to make 24 men with arms. |
| Lessees for years, 8, | { | 6 having 100 acres le piece. | | |
| viz. | { | 1 having 20 acres. 1 having 12 acres. | | |

No. VI.

2000 acres. *John Heron* hath two thousand acres,
called Aghivillan and Brochus.

Upon this he hath built two small bawnes of earth, with a pallazado upon them, and a ditch about them; and near unto each of these bawnes he hath built houses, which are inhabited with English families.

I find

I find planted and estated upon this land of Brittish families.

| | | | |
|-------------|---|-----------------------------|--|
| Freeholders | { | 1 having 180 acres. | } Total 13 families, which, with their under tenants, are able to make 26 men with arms, |
| 1, viz. | { | 1 having 120 acres. | |
| | { | 2 having 30 acres le piece. | |
| Lessees for | { | 3 having 20 acres le piece. | |
| years 12, | { | 2 having 15 acres le piece. | |
| viz. | { | 3 having 10 acres le piece. | |
| | { | 1 having 60 acres. | |

No. VII.

1500 acres. *William Stanhowe* hath 1500 acres, called Kannagoolan.

Here is nothing at all built; himself is in England, and hath been there these seven years. There are not above three or four poor English men upon the land. All the land is inhabited with Irish.

No. VIII.

2000 acres. *Francis Sacheverill*, Esq. hath two thousand acres, called Mullallelis and Leggacorry.

I find

I find planted and estated upon this land of Brittish tenants.

| | | | |
|-------------|---|------------------------------|--|
| Freeholders | { | 1 having 150 acres. | } Total 21 families, who, with their under tenants, are able to make 50 men with arms. |
| 3, viz. | { | 1 having 120 acres. | |
| | { | 1 having 100 acres. | |
| | { | 1 having 220 acres. | |
| | { | 5 having 100 acres le piece. | |
| | { | 1 having 95 acres. | |
| | { | 1 having 80 acres. | |
| Lessees for | { | 1 having 74 acres. | |
| years 18, | { | 4 having 60 acres. | |
| viz. | { | 2 having 40 acres le piece. | |
| | { | 1 having 12 acres. | |
| | { | 1 having 15 acres. | |
| | { | 1 having 30 acres. | |

No. IX.

1500 acres. *John Dillon*, Esq. hath one thousand five hundred acres, called Mulla-bane.

Upon this proportion there is a house begun some three years since, but is not half finished, being of brick and lyme, and a very fair building. There is no bawne. He hath great store of tenants, the which have made two villages, and dwell together.

I find

I find planted and estated upon this land of Brittish families.

| | | | |
|----------------------------|---|------------------------------|--|
| Freeholders | { | 3 having 120 acres le piece, | } Total 29 families, who, with their under tenants, are able to make 40 men with arms. |
| 3, viz. | { | his sons. | |
| Lessees for lives 18, viz. | { | 3 having 100 acres jointly. | |
| | | 4 having 100 acres jointly. | |
| | | 2 having 100 acres le piece. | |
| | | 2 having 80 acres le piece. | |
| | | 1 having 70 acres. | |
| | | 5 having 60 acres le piece. | |
| Lessees for years 8, viz. | { | 1 having 50 acres. | |
| | | 1 having 47 acres. | |
| | | 2 having 30 acres le piece. | |
| | | 1 having 40 acres. | |
| | | 1 having 30 acres. | |
| | | 1 having 23 acres. | |
| | | 1 having 20 acres. | |
| | | 1 having 10 acres. | |
| | | | |

No. X.

The Precinct of the Fewes, allotted to Scottish Undertakers.

1000 acres. *Henry Atcheson, Esq.* hath a thousand acres, called Coolemalish.

There is upon this a bawne of clay and stone, being an hundred and twenty feet long, and eighty feet broad,

broad, with four flankers. In this bawne there is a house; the one half is stone and lyme, and the upper part is timber. I find a great number of tenants on this land, but not any that have any estates, but by promise, and yet they have been many years upon the land. There are nominated to me two freeholders, and seventeen leaseholders, all which were with me, and took the oath of supremacy, and petitioned unto me, that they might have their leases; the which Mr. Atcheson seemed to be willing to perform it unto them presently; these are able to make thirty men with arms. Here is great store of tillage.

No. XI.

| | | | | |
|----------------------------|---|-------------|---|--|
| <i>James Craig</i> | } | 1000 acres. | { | <i>John Hamilton Esq.</i> |
| was the first patentee. | | | | bath a thousand acres, call- ed Magharientrim. |

Upon this there is a bawne of stone and clay, being sixty feet square, twelve feet high, with two flankers.

I find

I find planted and estated upon this land of Brittish families.

| | | | |
|-------------|---|-------------------------------|--|
| Freeholders | { | 1 having 200 acres. | } Total 20 families, able to make 30 men witharms. And these have all taken the oath of supremacy. |
| 2, viz. | { | 1 having 100 acres. | |
| | { | 1 having 120 acres. | |
| Lessees for | { | 2 having 60 acres le piece. | |
| years 6, | { | 1 having 96 acres. | |
| viz. | { | 1 having 60 acres. | |
| | { | 1 having 50 acres. | |
| Cottages 12 | { | Each of these have a tene- | |
| viz. | { | ment and a garden plott, with | |
| | { | commons for their cows. | |

No. XII.

| | | | |
|----------------------------|---|-------------|-------------------------|
| <i>William Lawders</i> | } | 1000 acres. | } <i>John Hamilton,</i> |
| was the first patentee. | | | |

Esq. hath a thousand acres, called Kilruddan.

Upon this there is a bawne of stone and clay, sixty feet square, twelve feet high, with two flankers, and a house in it. Near to the bawne there are seven houses, being inhabited with Brittish tenants.

I find

I find planted and estated upon this land of Brittish tenants.

| | | |
|--------------------------|--|--|
| Freeholders two, viz. | { 2 having 120 acres le piece. | } Total 17, able to make 30 men armed ; and all these have ta- ken the oath of supremacy. |
| Lessees for years 5, | { 2 having 120 acres le piece. | |
| viz. | { 1 having 60 acres. | |
| | { 2 having 66 acres le piece. | |
| Cottagers 10, viz. | { Each of these have a tene- ment and garden plott, with commons for their cattle. | |

No. XIII.

500 acres. *John Hamilton*, Esq. hath 500 acres,
called Edenagh.

The other five hundred acres were
gotten from him by the dean of Ard-
magh. Upon this there is a bawne of
stone and clay, pointed with lyme ;
there are near the bawne six houses
inhabited with Brittish tenants.

I find planted and estated upon this land of Brittons.

| | | | |
|---------------------------------|---|---|--|
| Freeholder one, viz. | { | 1 having 120 acres. | } Total 10 families, who, with their under tenants, are able to make 22 men with arms; and all these have taken the oath of supremacy. |
| Lessees for years 4, viz. | { | 1 having 120 acres. | |
| | { | 1 having 100 acres. | |
| | { | 1 having 80 acres. | |
| | { | 1 having 30 acres. | |
| Cottagers five. | { | Each of these have a tenement, and a garden plott, with commons for their cattle. | |

No. XIV.

Sir James Douglas was the first patentee. } 2000 acres. { Archibald Atcheson, Esq. hath two thousand acres, called Clancarny.

Upon this there is a bawne of stone and lyme, being an hundred feet long, eighty feet broad, and ten feet high, with four flankers two stories high, and thirteen feet wide, within the walls, which serve for good lodgings. There is also a castle begun, which is eighty feet in length, twenty-two feet wide,

wide, and is now two stories high. There are near to the bawne seven houses inhabited with Brittish tenants. He hath in the bawne great store of arms, which will arm 129 men.

I find planted and estated upon this land of Brittish families.

| | | | |
|----------------------------------|---|--|---|
| Freeholders four, viz. | { | 1 having 200 acres. 3 having 100 acres le piece. 1 having 200 acres. 2 having 180 acres le piece. | } Total 29 families, who, with their under tenants, are able to make 144 men with arms. Besides he hath built a town, called Clancarny, where he hath 29 British tenants dwelling; each of them having some small parcels of land; so that in the whole number he can make 173 men armed. |
| Lessees for years 20, viz. | { | 1 having 120 acres. 4 having 60 acres le piece. 6 having 60 acres jointly. 2 having 60 acres jointly. 4 having 60 acres jointly. | |
| Cottagers five, viz. | { | Each of these have a house and garden plott, with commons for their cattle. | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

No. XV.

The Precinct of Orior, allotted to Servitors and Natives.

500 acres. Sir *John Davies*, knight, hath five hundred acres, called *Cornechino*.

Upon this there is nothing at all built, nor so much as an English tenant on the land.

No. XVI.

1500 acres. Sir *Oliver St. John*, knight, hath fifteen hundred acres, called *Ballemoore*.

For building there cannot be more spoken than what hath been formerly by Sir *Josias Bodly*, only the town is increased in buildings, being all inhabited with English tenants. There are nine Irish families in the town, which come to church, and have taken the oath of supremacy.

No

No. XVII.

1000 acres. The Lord *Moore* hath one thousand acres, called Ballemonahan.

Upon this there is a bawne of lime and stone, very near one hundred feet square, with two flankers; in one of them there is a small house built, being inhabited by an Irishman.

No. XVIII.

2000 acres. *Henry Bowcher*, Esq. hath two thousand acres, called Claire.

Upon this proportion there is a bawne of lyme and stone, being one hundred feet in length, and eighty feet in breadth, and fourteen feet high, with two flankers. There is now in building a good strong stone house, which is fully two stories high, and a number of workmen labouring for the speedy finishing thereof.

No.

No. XIX.

1000 acres. Captain *Anthony Smith* hath one thousand acres.

Upon this there is a bawne of stone and clay, which was formerly begun by Sir Thomas Williams. The said Captain hath begun another bawne of stone and lyme, being in a more convenient place, the which shall be eighty feet square, with two flankers, and a good stone house thirty feet long, and twenty feet broad. This is undertaken to be finished by July, for there are a great number of men at work.

No. XX.

200 acres. Lieutenant *Poyns* hath two hundred acres, called Curriator.

Upon this there is a bawn of eighty feet square, the lower part whereof is of stone and clay, with a house
in

in it; but he not liking of the seat hath begun a bawne of one hundred feet square, with three flankers, and a large house, all which shall be of brick and lime, which is there now in the place, with workmen labouring very hard, and is undertaken to be finished by August.

No. XXI.

1000 acres. *Henry Mc-Shane O'Neal* hath one thousand acres, called Camlogh; but, he being lately dead, it is in the hands of Sir Toby Caulfield, who intended to do something upon it; for as yet there is nothing built."

No.

*Religious Houses of the County, from Sir James
Ware's Antiquities of Ireland.*

Abbey of St. Peter and St. Paul, in Armagh.

“ THE first founder, it is thought, was *St. Patrick*; the second *Imarus O'Hedegain*, master of *Malachias O'Morgair*, afterwards archbishop of Armagh. The canons were of the order of *St. Augustin*.

Friary in Armagh.

A convent of *Minorits* was there founded by *Patrick O'Scanlain*, archbishop of Armagh, in the year 1263 or 1264.

Two Nunneries in Armagh.

There were likewise two little nunneries built there, the one called the temple of *St. Bridget*; the other *Temple-na-ferta*, or the temple of wonders, wherein *St. Lupita*, sister to *St. Patrick*, was buried.

buried. Of the first founder I find no certainty ; but *Jocelyn*, in the life of *St. Patrick*, cap. 165, says they were founded by *St. Patrick*.

Nunnery of Kilsleve-cuilin.

Founded by *Darerca*, called also *Monirne*, where she was abbess, and died July the 6th, in the year 518.

*Religious Houses of the County, as stated in
Archdall's Monasticon Hibernicum.*

ARMAGH.

Priory of Regular Canons.

“ A. D. 445. *St. Patrick*, the great apostle of this kingdom, founded an abbey here in this year, or in 457, for regular canons of the order of *St. Augustin*, and dedicated it to the apostles *St. Peter* and *St. Paul*; it continued, for many ages, one of the most celebrated ecclesiastical foundations in the world.

This

This abbey, and all the possessions thereunto belonging, were granted, in May 1612, to Sir Toby Caulfield, Knight, at the rent of five pounds Irish.

Priory of the Culdei.

The Culdei, or Colidei, were secular priests, and served in the choir of the cathedral of Armagh; their president was called the prior of the college of the Culdei, and was as a precentor to the said church; upon a vacancy a prior was elected by the whole college of the Culdei, but he received his confirmation from the archbishop.

Temple Brigid;

Is said to have been founded in this town by St. Patrick.

Temple Fartagh;

Or the church of the Miracles, was founded without the town by the same Saint, for St. Lupita, his eldest sister, who was buried here; and, in the beginning of the last century, her body was found
buried

buried deeply under the rubbish of her ancient nunnery, in a standing posture; two crosses were also discovered closely guarding the body before and behind.

January 9, 1618, King James granted the monasteries of Temple Fartagh, and Temple Breed, to Francis Annesly, Esq.

Dominican Friary.

Porter in his annals tells us, that there was one at Armagh; which is more than probable, otherwise the primate Scanlain, who was of that order, would not have made his foundation for the friars minor.

Franciscan Friary.

The friars of the order of St. Francis were brought into this town A. D. 1261, and Patrick Scanlain, who was then primate, built a house for them two years after; though Wadding, the Franciscan, as quoted by Allemande, assures us, that it was founded in the year 1291, by O'Donnel.

Clonfeakle.

St. Lugud, or Lugaid, the son of Tailchan, was abbot of Cluain-fiacul, that is, the church of the
Tooth,

Tooth, so named from a tooth of St. Patrick, which was said to have been preserved here. St. Lugud was a very aged man in the year 580.

Kilmore.

St. Mochtee, who afterwards built Louth, founded Kilmoreacdhain, in the territory of Huadmeth; the church is dedicated to St. Aedan.

Kilmore is now a parish church, three miles east of Armagh.

Kilsere.

Wadding, the Franciscan, calls this Killare, and says it was the principal monastery belonging to the third order of Franciscans in Ireland. Thomas Ornay was made perpetual commissary of it in the year 1457.

Killery.

At the foot of the mountain of Slieu Gullen, in the barony of Orior.

St. Darerca, otherwise called Monenna, sister to St. Patrick, was abbess of Kilsleve, or Belsleibhe; she died A. D. 517, or 518, and her feast is held on the 6th of July. Others say, that this nunnery

was

was built by St. Monenna about the year 630, after she had quitted Faugher, in the county of Louth.

Kilsleve is now a parish church in the Diocess of Armagh.

Stradhailloyse.

Wadding says, that it is in the diocess of Armagh, and that a monastery for conventual Franciscans was founded there A. D. 1282, and that a provincial chapter of the order was held therein in the year 1315.

Tahellen ;

In Hy-meith-tire. St. Patrick founded Teg-talain, and made St. Killian bishop of it ; his feast is held on May the 27th.

This church was burnt A. D. 670.

FINIS.

Instructions to the Binder.

Map of the County to face page 1.

Chart of Lough-Neagh to face page 96.

ERRATA.

Page 19, in the Ecclesiastical Table, for 13,300 *acres in Meath county*, read 1,300. In the next column, under the head *Parishes*, same page, the numeral is not added in the tot, which is correct ; it should not be distinguished by the figure, but the word *two*.

Page 20, line 8, for 3, read 5, and then add this sentence ;
the Chapters of Christ Church, and St. Patrick's, Dublin,
to 3.

Page 38, line 12, for, *specious*, read, *spacious*.

— 65, — 4, for, *interrupted*, read, *interspersed*.

— 90, — 5, for, *Portmorris*, read, *Portnorris*.

— 148, — 4, for 7*s.* 1*d.*, read, 1*s.* 7½*d.*

— 172, — 17, for, *very*, read, *very few*.

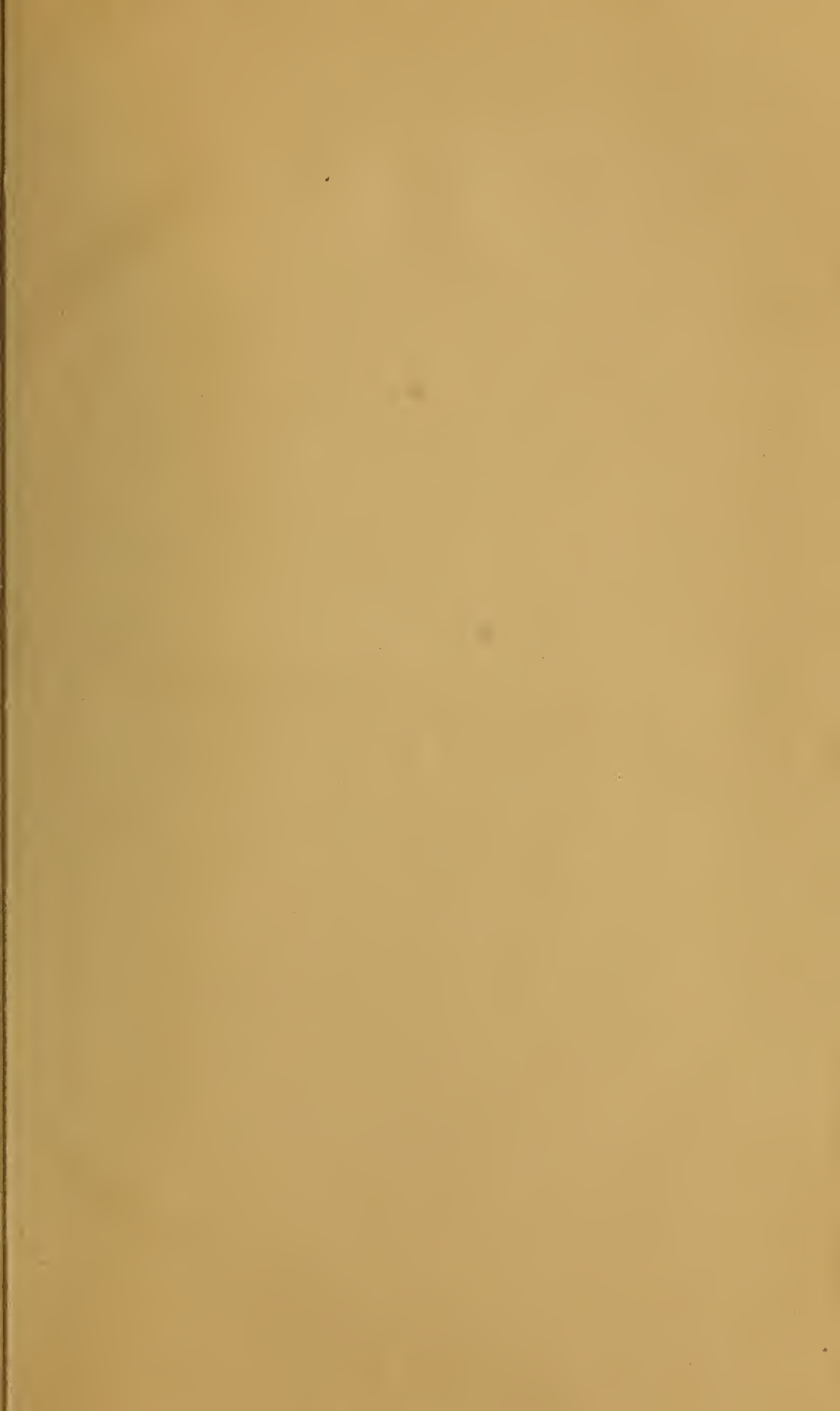
— 175, — 10, for, *the during*, read, *during the*.

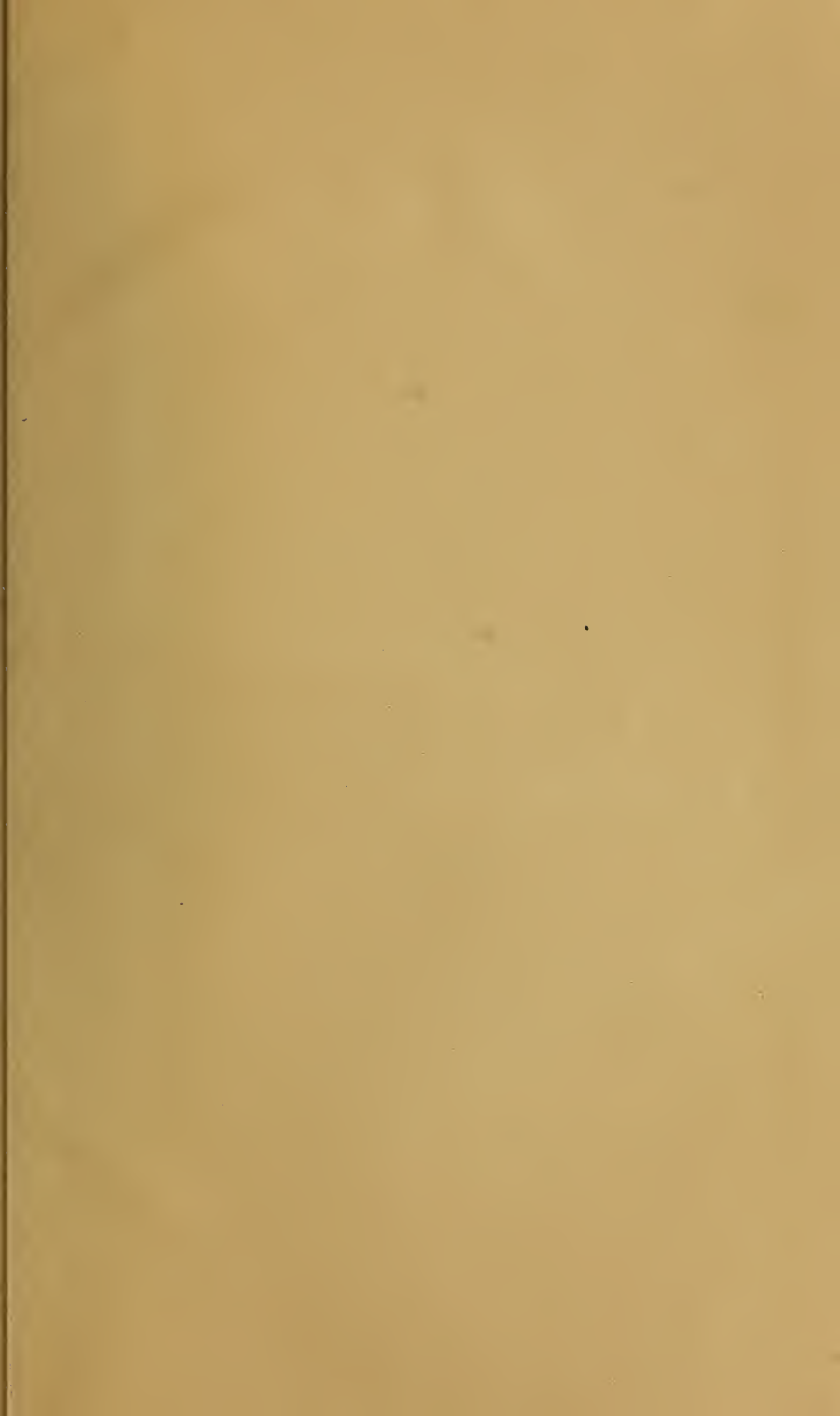
— 259, — 10, for, *steps*, read, *steeps*.

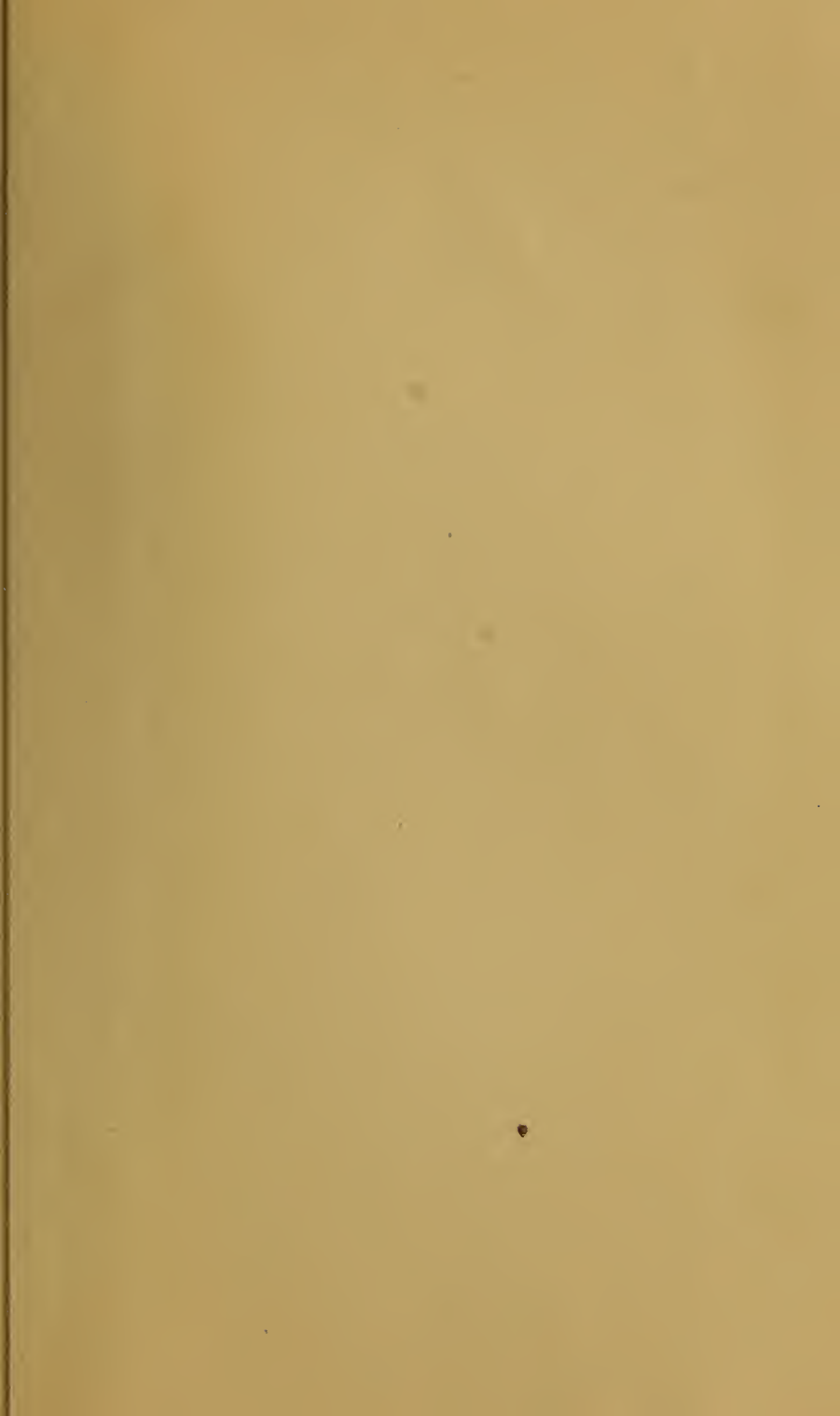
— 339, — 21, for, *house*, read, *market-house*.

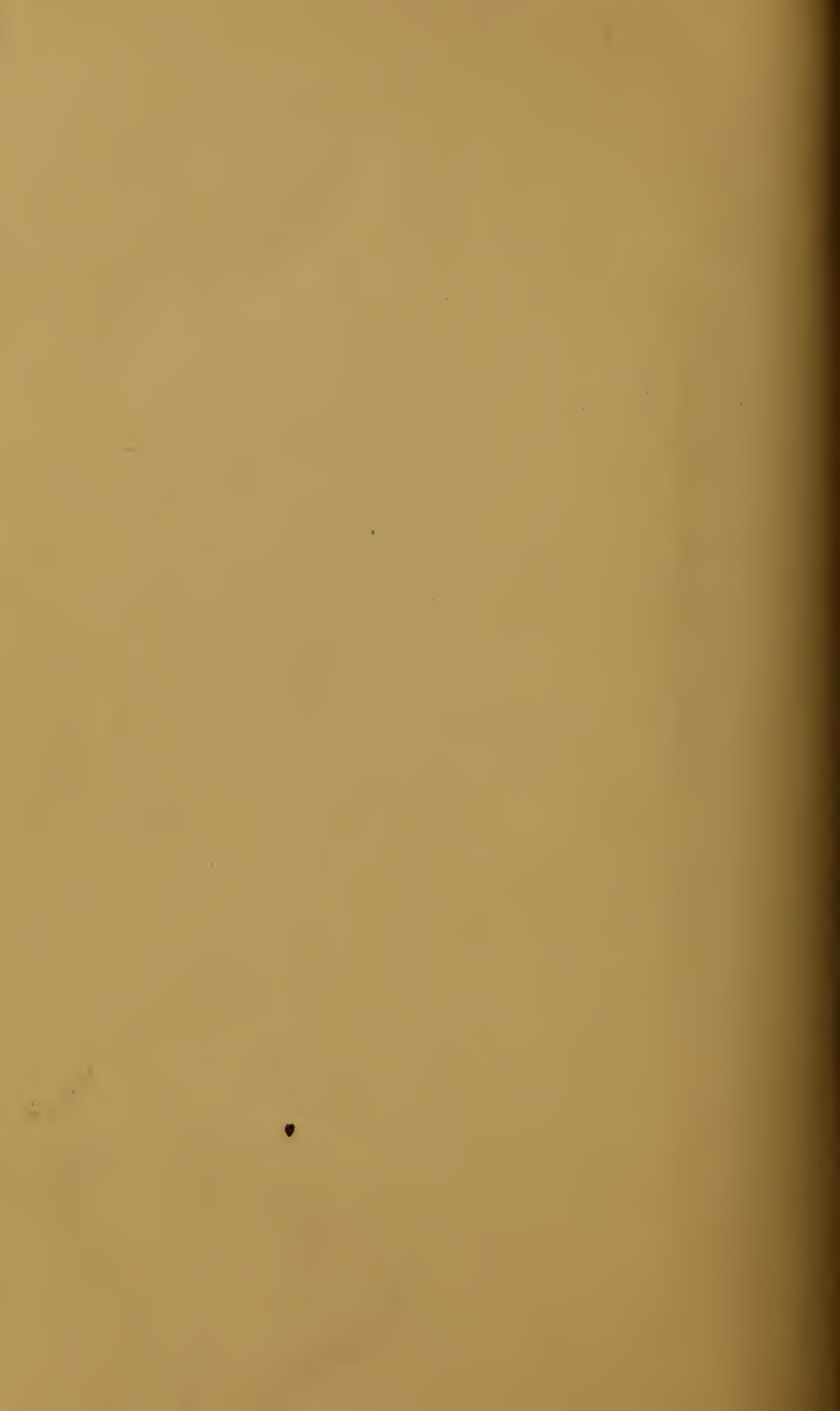
— 355, — 6, for, *Doctor Lester*, read, *Doctor Leslie*.





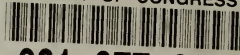








LIBRARY OF CONGRESS



0 021 377 937 0